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AKADÉMIAI KIADÓ, BUDAPEST

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ACTA

VOLUME 23 NUMBER 1—2 1979

## ACTA OECONOMICA

#### A MAGYAR TUDOMÁNYOS AKADÉMIA IDEGEN NYELVŰ KÖZGAZDASÁGTUDOMÁNYI FOLYÓIRATA

#### Felelős szerkesztő:

#### Földi Tamás

#### Szerkesztőség: 1112 Budapest, Budaörsi út 45. 1502 Budapest Pf. 262.

Megjelenik évi 2 kötetben. Megrendelhető az Akadémiai Kiadónál (1363 Bp. Pf. 24.), a külföld részére pedig a Kultura Külkereskedelmi Vállalatnál (1389 Budapest, Postafiók 149).

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> editor T. FÖLDI

> > **VOL. 23**



AKADÉMIAI KIADÓ, BUDAPEST

1979

## FOR OFCONDANCE

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#### J. BOGNÁR

#### RELATIONS OF THE CMEA WITH THE WORLD ECONOMY AT THE BEGINNING OF A NEW ERA

The study discusses the "external" system of relationships of the CMEA integration, that is, the political and economic conception according to which these relations had been established and under which they were operated during later years. Our starting points are: the fundamental changes in world politics and economy, the world economic positions so far attained by the CMEA, and the shifts in the system of values of member countries. From these perspectives an answer is sought to the question: at the present time what would be the most advantageous system of relationships with the "external" world, equally favourable for the future of the world, the world economic role of the CMEA and the economic development of member countries.

The CMEA is the historically developed system, structure and mechanism of economic relations between, and common efforts of, the member countries, organized with a view to promoting the development of participants and strengthening the world economic relations of the socialist countries. In recent decades, by force of the character and the system of goals of the cooperation, this system of relations has taken the form of economic integration. In accordance with their character and strivings, economic integrations incorporate the objectives and conditions of economic cooperation among member countries into such coherent systems which extend common economic activities over wider fields and handle them in a more complex way than does the international trade linked through the world market. Accordingly, member countries strongly develop economic relations among each other, to an extent depending on interests, intentions, and on postulates of economic rationality. Parallel with the elaboration of conditions and motive powers of "internal" cooperation (among member countries), in their "external" system of relations the integrations are linked to other actors of the world economy in conformity with the principles and rules of international trade (economic relations). Of course, this "external" system of relationships also plays a very important role in establishing the world economic positions of the CMEA and in the promotion of economic growth in member countries.

In analysing and examining the "external" relations of integration we wish to especially emphasize the fact – often neglected by technocratic economists – that integration is not an exclusively economic undertaking. As a matter of fact, in its formation, and in the development of its particular economic conditions politicalideological as well as security factors play a highly important role. Integrations function

within a system of *strong interactions* with other organizations of the member countries (we think first of all of political and military ones). We speak of *interactions* and not of one-sided influence or "determination" (as it is often said inaccurately in everyday speech), which means that the integration itself exerts a strong influence on the position, scope of movement and armoury of political and security factors through the economic results and potentials attained.

The political and security factors – related to the existence and survival of countries (nations) – determine certain possibilities (social scope of movement) and *constraints* for the economy. And – to an extent depending on the character of the socio-economic system – they continue to determine principles and requirements, to indicate objectives, to control, and to balance. These prescriptions and conditions represent for the economy *the system of conditions of their functioning, which of course consists mostly of economic components*. A system of interactions between political-security and economic factors exists in a certain sense in every country, since the economy – and in particular foreign economic activity – is a community (all-over social) problem in those countries, too, where the private ownership of the forces of production is dominating.

If we accept the basic principle of rational economy – expressed in the postulate of the largest output or smallest input under given conditions – we must concede as well that the principles and objectives determined by political and security considerations (zones "indicated" for the economy and objectives determined independently of the above-mentioned postulate) may come into conflict, at certain tangential points, with the principles and conditions governing the "internal" functioning of the economy. Of course, the above-mentioned basic principle of rational economy is, in its final form, an abstraction; it is only a postulate and not the resultant of real economic forces. Behind this postulate there lie, however, such conditions and interests which make the implementation (approximation) of this postulate into an interest, between certain constraints, since no economic decision must be made on the basis of a single viewpoint, and decision also have side-effects.

It follows that in the course of formulating (including into a system) demands, objectives, and rules determined by the political and security spheres it must be observed, as a constraining factor, that the particular conditions and scope of the economy must be provided for. Otherwise the performance of the economy will be lower, thus involving lower consumption, less investment, and a stagnating budget, in other words, an economic development at slower rate and of poorer quality relative to potential enemies or competitors. And that is undesirable also from the political and security aspects. It is clear that in the course of economic development so far the "security" coefficients of economy (for example, relative prices) have often been left out of consideration, but it is equally obvious, that the political and security sphere has not attributed enough importance, either, to the system of conditions in which the achievement of economic results is possible.

#### J. BOGNÁR: THE CMEA AND WORLD ECONOMY

## External and internal economic conditions at the time of organizing the CMEA

These seemingly abstract explications were necessary, because the connexion between political security and economic interests or their possible conflict is expressed with a particular intensity in "external" relations. Under sharp international tensions the number of such economic decisions suddenly grows as would be believed as wrong or incomprehensible upon "purely" economic considerations.

In the interest of analysis and comparison, let us now very briefly recall the external conditions and internal necessities under which the CMEA had been organized.

In 1949 the "external" world was very antagonistic and dangerous from the point of view of socialism. The main factors (attributes) of the antagonistic and dangerous external world were the following:

a) The cold war was raging with full force, and the "roll-back" policy had started.

b) The danger of transforming the conflict (cold war) between East and West into a hot war often reached the culmination point and stayed near it for long periods between 1949 and 1953.

c) In this fight the socialist countries were almost cut off from the other parts of the world, since - apart from a few exceptions - the colonial system was still strong and the new national states were just beginning to appear. And economically they were approachable only through the Western metropolises.

d) In the economic field the Americans declared an embargo, and their allies joined them; this covered 50 per cent of the goods participating in international trade. Obviously, embargo is a political instrument implemented by economic means and directed, through the economy, at weakening the other party, and at promoting its collapse.

Having surveyed the international political and economic conditions let us now have a look at the internal economic development problems of the European socialist countries.

In the smaller countries the process of socialist transformation of society had hardly begun in that period. Looking at it from the economic policy aspect: an extensive economic development relying on the home market and on the amply available labour reserves had to be started, in order to bring about an industrial structure that might later on become a motive power of development.

Reliance on the home market was not only logical but also necessary in that period, since satisfaction of the basic needs of social groups which had been suppressed and exploited in the past preceded every other consideration.

As a consequence of the embargo, "external" economic relationships (outside the CMEA) were fast decreasing in volume and importance. The preference of "internal" trade was not only a policy but the only possibility, and import substitution (substitution of Western imports) was not only a conception but the only possible solution. And the mechanism "serving" the trade within the integration necessarily reflected the little

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economic control and management experience that was at the disposal of socialist countries at that time. The lack of such experience was demonstrated in that period even by national economic policies and mechanisms.

These very briefly outlined external conditions and internal problems thus promoted, quite understandably, and as the only realistic possibility, the development of an "inward turned" integration, which was connected with the external world only in a narrow zone necessitated by the absolutely inevitable imports. An export policy was not at all formulated. Turning inward equally concerned economic policy (autarkic efforts at providing for the most important raw materials, import substitution conception in development policy, concentration on the home and socialist market in production), and the motive powers of commodity-exchange and production (cooperation) relations.

But the fact that some development alternative (decision) is inevitable and justifiable does not save us from the consequences and negative effects. Before speaking about these, *it must nevertheless be stated that the socialist countries were capable of defending their system and themselves against external pressure (roll-back), which proves that the "inward-turned" type of integration has stood the test.* It also helped to demonstrate that economic embargo was not an instrument suitable to break these countries.

This success proved to many that the foreign economic policy pursued and the mechanisms and organizational forms influencing it had been right. It is due to this circumstance that the first experiments with economic reform following the détente were almost exclusively concentrated on the home economies, while foreign economic conceptions, mechanisms and organizational forms remained almost unaffected.

In the international sense (in the field of foreign economic relations), therefore, détente did not bring along the development of new foreign economic and cooperation conceptions, but a certain modification of old conceptions and a "softened version" of existing practices. (Obviously, during the period of cold war the "strict" versions of the above-mentioned practice were in use.) The "softer" version of the system of foreign economic relations brought about a *considerable* growth in the different torms of trade and economic relations, though relying upon an "uncertain basis" and amid cyclical fluctuations depending on political cycles. The dynamics of this growth gained momentum after the beginning of a new era in world economy (the energy crisis), so that now the volume of trade, the quality and forms of relations, and their effects are beginning to go beyond the framework of the existing institutions of East-West trade.

### Basic changes in the external environment and the internal efforts of the CMEA

Let us compare the now existing external environment and home political objectives of the CMEA with those of 1949 and the years following it.

a) By the 1970s the position of socialist countries in the world and in the community of nations had not only strengthened but had become consolidated as well.

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There are no such governments any more whose declared political aim would be to change the internal system of these states. In international relations this is expressed also by the fact that negotiations, meetings, and invitations take place according to the particular power and institutional structures of the socialist countries (different from that of other countries).

b) A balance of military forces has been achieved between East and West, recognized by both parties and providing one of the supporting pillars of the world system (balance). Since this balance of power is a precondition of peace, it is obvious that its maintenance is in the interest of every peace-loving force (countries, governments, political and economic power factors). True, this balance has come about, for the time being, on the basis of "mutual deterrence"; and the arms race is undeniably very expensive, but it may be possible to find an equal order of magnitude (in terms of quantity and quality) of mutual security *also at a lower level of armaments*.

c) A multi-pole world system is beginning to take shape, which renders the balance system of the world more subtle, but at the same time promotes a more cooperative approach to the tensions outside Europe.

d) Developing countries play an increasingly important role in world politics and, by formulating the new economic order, they have shown their intensifying economic policy efforts as well. The most important aim of these countries for the coming decades cannot be anything else but a fast and smooth development at home, and the establishment of such international economic conditions as will promote this development.

e) The 1970s brought the beginning of a *new era in world economy*, which has been the most important economic event of recent decades. This new era creates a radically new system of economic conditions and will force national economies and the whole humanity – that will count 6 thousand millions by the turn of the millennium – to concentrate their best forces on the economy, with a view to survival and development. Through development, production and supply the new era creates increasing dependence among national economies, which become interested not only in the development of their own economy, but also in that of others. Thus, foreign economic relations play an increasingly important role in the life of every economy and determine their development.

#### The necessity of international cooperation for the CMEA region

Changes have taken place not only in the "external environment" of the CMEA. As regards "internal" changes, we wish only to indicate that for the socialist countries only the conditions of an *intensive type of development* are given or can be created at present. Namely, the conditions of extensive development have been exhausted: there are no labour reserves and, within the given structure, the production of a unit of national income consumes an unjustifiably high amount of labour, capital, and imports. Both developments necessitate fast technological progress and radical structural changes, that

is, they require a switch-over of economic policy - and, considering the character of the imbalance, particularly of foreign economic policy.

This analysis of the "external" position of the CMEA (its position in the world) proves that there are no obstacles in the way of building up "external" economic relations, the environment being much more favourable than it was in the years after 1949.

This fact has a particular importance in an age in which the role of the economy has *objectively* grown from the point of view of the survival and development of humanity and when the foreign economic factor is of decisive importance in the rate, structure and economic efficiency of growth in the different national economies. It has to be mentioned, too, that the system of growing *mutual dependence* within economic relationship is well suitable to create the atmosphere and economic basis (the relationships themselves may constitute such basis) for bringing about the mutual trust indispensable for the settling of political and security problems. (For the time being, rather more for the reduction of mutual mistrust.) The security sphere is not inflexible in itself (relative to its own tasks and alternatives), but it is its links with other spheres that are "inflexible" (meaning the effects exerted by other spheres). This situation can be changed only if the consequences of the changed world economic situation are reinterpreted in every sphere and linkages created accordingly.

With a firm balance of powers and agreements aimed at its maintenance the political and security sphere may take higher risks than, e. g. in the case of international tension and imbalance. In this changed world, risk factors must be revised, of course, in other fields as well, yet it is obvious that the actual state of the economy, or the preservation of systems of conditions rendering difficult or hindering the solution of economic problems also involve high risks and dangers.

And the "enlarged" "external" world (the appearance of developing countries) involves, on the one hand, diversification of relationships and, on the other hand, a wide variety of alternative solutions.

Transformation of the foreign policy and foreign economic environment of the CMEA were given a huge impetus by the processes and phenomena of the beginning of a new world economic era. These processes and phenomena will affect every national economy and integration and every economic activity in the coming decades and will bring about thorough changes in the system of economic reasoning. As a consequence, in every economy and in every sphere of economy *new decisions* will be needed to start or to extend structural transformation.

#### Factors of the beginning of a new era

Two factors of the beginning of a new era which involve the need and necessity of a wider and more developed economic cooperation will be particularly stressed.

The first factor includes the *global problems*. These involve such dangers or potential dangers as might lead to catastrophes in the relationship between man and

nature if the earlier economic management practices were further pursued, or which would become "uncontrollable" socially and internationally. Therefore, the prevention and warding off of catastrophes potentially presented by the global problems necessitate a collated economic policy practice, coordinated actions and wide cooperation.

The various international organizations and regional Economic Committees (of the UN) must play a very important, active and initiative role in proposing the new economic policy practice, in elaborating the various actions and in promoting cooperations. But the programmes themselves must be fulfilled first of all by national economies and integrations as long as world economy is divided into 170 national economies and all effective economic power and reproducible resources are held and disposed of by them alone.

The second factor is represented by the group of phenomena of *economic interdependence*. Interdependence is not an exclusively economic phenomenon. Since the beginning of the new era it appears with growing intensity in the international political and security system, as well as in the relationship between man and nature.

In the economic sense the system of mutual dependence and determination (interdependence) means that national economies are dependent on each other to a larger extent than they have ever been in economic history. Even in our days we can establish with appropriate exactness the effects of a price increase, some loss of production (for example, in agriculture because of bad weather), a grave economic disturbance (loss of exports, or disturbances in payments) in some country on the development (rate of growth) of the various sectors of world economy. Approaching it from another aspect, this phenomenon indicates that we live in a world economy so much intertwined and subtle that we must take into consideration the interests of others as well. This is all the more important as the present structure, institutional order and mechanism of the world economy and world politics are out of harmony with this necessity.

The simultaneous presence of these two factors (global world problems and interdependences) make it necessary for the integrations to cooperate with the "external" world in a much larger scope than they have been doing so far.

In the "internal" world of the integration the interests of each member country, have been always observed; this has been institutionalized also by the rules and norms of cooperation within the integration.

Explications, analyses, and *comparisons* so far made indicate that, from the aspect of the interdependences of world politics and world economy, there is a *possibility* as well as a *necessity* of a much more extensive and diversified international cooperation than ever before in the course of economic history; as compared to the years following the establishment of the CMEA, we can speak expressly of a turning-point.

The new developments and processes constitute an organic part of the international tendencies at the turn of the millennium, thus they promise to be *permanent and intensive*. Some elements of the developments and processes do not represent only a *possibility*, but also involve *a necessity for decision-making*. The concept of necessity must be interpreted correctly, of course: it does not mean that decision-makers will have but a

single alternative, which will coincide exactly with the course of rational action. On the contrary: wrong decisions may also be made, and the day of decision-making may be put off. However, in the case of a wrong decision, or postponement we shall be faced again with the same dilemma, and under worse conditions at that. With a view to better understanding, we shall use a brief example for illustration.

Let us assume that a country tries to develop its backward economy while lacking in means and amidst strong social tensions. In the meantime, it gets into a conflict (a minor war) with a neighbouring country in a similar situation.

After the conflict has broken out, a number of international organs and states will exert serious political and diplomatic efforts in order to liquidate the conflict. Their intervention proves to be successful, and the conflict dies away within a few weeks. In the course of the conflict a great amount of political and diplomatic force has been consumed, that could have been used, under other conditions, for the solution of problems *in fact* much more important for the world, the human race, and world politics. The countries that have participated in the conflict have suffered serious financial losses: they have incurred new debts and liabilities, and have lost some of their means that could have been used for development. When the conflict has ended, development of the backward economy must be carried on under worse conditions and in possession of smaller resources.

#### Is it economically advantageous for the CMEA to develop its external relations?

From the point of view of the "external" world, the development of cooperation is *possible, necessary, as well as rational.* It remains a question, however, and we shall seek answer to it in the following, whether the most advantageous version for member countries of the CMEA is an intensive development of "external" relations. In order to find a correct answer to the question, one must examine carefully the economic policy situation of the member countries and, starting from this point, to find out, what role may be played by "external" relations in overcoming certain constraints of development and in strengthening its motive powers.

We wish to point out that the author's findings and opinions on economic policy are in most part based on the Hungarian economic situation and problems. In his preparations for the present study he has not examined the economy of other member countries in full detail. In the knowledge of a large number of data and comparisons, and relying upon long years of theoretical as well as practical experience, he has still formed the opinion that the situation of member countries is very similar as far as *external relations* (system of interests) are concerned. This similarity (more exactly: this kind of similarity) does not imply, of course, that there are no essential differences in a number of other fundamental questions (resources, population, density of population, established structures, etc.) among the economies in question.

#### J. BOGNÁR: THE CMEA AND WORLD ECONOMY

Every member country has begun to switch over from the extensive type of economic growth to the *intensive* one. The change in the type of growth is made necessary as well as urgent by the following factors:

a) Exhaustion of the resources of extensive growth: ample reserve labour, relatively low wages (as compared with Western countries), cheap energy and raw material in quantities adjusted to growth are no longer available. The latter has been available first of all to the Soviet Union, but the Soviet economy has amply satisfied also the needs of the other member countries.

b) The low productivity and income-producing ability of the economies. This is manifest in the fact that too much labour, capital and imports are spent on the production of a unit of national product. From another aspect: input is too high in comparison with output.

c) Within the established structure, and with the given productivity and export potential *imports are rising inevitably faster than exports*; which involves that the general imbalance is accompanied also by a foreign trade deficit.

It is necessary to change the type of growth, that is, to implement comprehensive changes in economic policy, because the *imbalance* cannot be eliminated in any other way. *The present type of disequilibrium is, namely, a complex one:* it affects all types of balances, including the budget. Therefore, it cannot be eliminated by changing one or two, or even several factors. We would not like to commit the error of "overestimating" the problem of imbalance. We know all too well that no "perfect" equilibrium exists, and also that certain successful and dynamic processes will always help to restore balance. Similarly to others, we too have spent a few decades in a "shortage economy" and in dynamic development.

And yet we have to mention the fact that today even countries with much lower specific (per unit) energy and raw material consumption are unable to restore the balance between input and output without considerable structural changes and accelerated technological development. In the previous imbalances of socialist economies only a very limited role was played by energy and raw material problems or by the foreign economic factor. By now, however, CMEA countries have accumulated considerable debts, and in a few cases even the protection of the system of domestic economic policy objectives (from the rising rate of growth to consumption) was possible only by drawing in foreign resources. An import reducing policy in the administrative sense is under such conditions economically absurd and dangerous, since the holding back of imports amounts to holding back the growth rate.

The fact that the income producing ability of economies lags much behind the physical results of social production indicates that *the raising of production has an increasing number of non-desirable variants*. In general, the raising of production is not desirable if the alternative chosen further impairs the income producing ability of the economy, increases imports to an unbearable extent, or if the products cannot be sold on the world market at acceptable prices.

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Therefore, transformation of the production structure, improvement of productivity and of the income producing ability of the economy are no longer merely objectives of planned growth, but also its preconditions.

In this situation an economic policy must be pursued which undertakes – carefully considering the established social and political balance – to improve intensively and definitely the income producing ability (productivity), to transform the structure, to modernize technology and to accelerate technical changes, as well as to strongly boost exports.

The questions of social balance supported by the established social and political structure have been stressed, because the new economic policy gets into a temporary conflict with the established social consumption norms and habits at numerous points. Besides, with a view to strengthening the qualitative (not quantitative) factors of development, it has to prefer and encourage incentive, risk-taking, technological innovation and selling ability. We know very well that bureaucracy and part of the public opinion do not like capable and innovative managers ready to take risks, and that less capable managers with loose morals – who will put a sign of equation between their own supposed security and the security of the enterprise – will do everything to discredit them. Every reasoning person will understand that in a dynamic world today's neglect will become tomorrow's lag, with all its consequences.

#### Are massive imports of foreign technics necessary?

Are then well considered yet definite imports of complex foreign technology necessary under such conditions? Or, looking at it from another aspect: can import substitution be maintained as one of the main methods of development policy?

I think that massive imports of foreign technology are necessary for the fulfilment of the following economic development tasks:

a) In the interest of the unavoidable release of labour, preliminary investments must be carried into effect, that is, manual labour or inefficient technologies must be mechanized. This has to be implemented first of all in production.

b) A new industrial production structure has to be developed. Of course, as it will be treated later on in this study, the new structure has to be formed according to the needs of both the world market and the home market.

c) New technologies are needed in order to reduce considerably the specific (per unit) consumption of energy and raw materials. Because of the present and continually rising energy and raw material prices reduction of specific energy consumption is not just a measure of economy, but also a condition of competitivity on the world market, and that even from two aspects. Firstly, because energy and raw material consumption play a growing role in production costs, secondly, because nobody on the world market will be prepared to buy equipments "devouring" energy, fuel, or raw material.

d) The low productivity has to be raised in such trades which do not directly participate in solving foreign trade problems, yet are of great importance in the production

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of national income and strongly influence the productivity of other branches (building industry, public transport, etc.).

Beside the massive imports of technology and equipment, CMEA countries will buy from the "external" world an increasing volume of raw materials, consumer articles (from the developing countries), and, from time to time, also agricultural products.

The volume of the necessary imports is so large in the first phase of the intensive development that a special economic policy is necessary for its counterbalancing. The kind of economic policy that lays down the economic development tasks of the given country in a way oriented towards the world economy, and makes its choice among development possibilities dependent upon world market sales possibilities is called exportoriented. The concept of export orientation has obtained a pejorative sense in the socialist countries, together with a few other concepts of international trade. This value judgement is rooted in certain political and economic-history preliminaries, first of all in the fact that in the history of capitalist economies the fight for exports (markets) led to the suppression of, and conflicts with, weaker economies and states. In the present economic policy situation of the socialist countries (CMEA) this expression has no other meaning than the establishment of a strong link between development policy and the world market.

In the given conditions, however, an import substitution policy would lead only to the neglect of export possibilities. In this sense it might be said, with some exaggeration, that the conception of import substitution in development induces such imports as will not be covered by exports. Such cooperation would lead to a seclusion which is today dangerous from the international political aspect, irrational economically and which would amount to a voluntary renunciation of all possibilities and advantages inherent in international cooperation. Seclusion would further deteriorate the world economic positions of socialist countries and would enhance the contradiction between their politicalmilitary and economic potentials. This point must be particularly stressed, since it is well known that the share of CMEA countries in world trade amounted to only 8.6 per cent in 1978, and has never exceeded 12 per cent. It is also generally known that the share of these countries in gross world output is about 30 per cent. If we accept the conception according to which the actual power relations among states (nations) and social systems are considered to be the interactive aggregate of certain political-military, economic and scientific abilities and capacities, it will be obvious that it is most advantageous if these factors develop proportionally to each other. Economic and scientific instruments play an important role in the development of power relations also because the instruments appropriate for influencing situations can be used also alternatively (they may be mutually substituted for each other). Thus an adequate quantity and quality of the scientific means may save the power (the state, or the social system) the necessity of using politicalmilitary instruments for the achievement of aims attainable by other means as well. On the other side, economic and scientific instruments play a very important role in the consolidation of results achieved through other (political-military) factors.

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#### What is the measure of success of the CMEA?

It is obvious from the foregoing comments and statements that we measure the power and success of the CMEA – under the present world political and world economic circumstances – *also by its role played in the international economy*. (The world "also" indicates that there are other indicators of success, and we list among these by all means the success in economic development of the member countries, since, in the final analysis, the CMEA was founded with this objective in view.) Of course, we know that there is also a third summary indicator of success of the CMEA: the share of mutual trade within the total trade of the member countries.

Obviously, this third indicator cannot be decisive *in itself*. What is more, looking at it with our present knowledge, we can say that *it is only the three indicators together that can demonstrate the success of the integration*. This statement refers, of course, to the present period, that is, to what can be considered as *normal* from the aspect of economic relations: when the member countries have *decision alternatives* to choose from. Since there have been *alternatives*, the share of internal trade has diminished in every integration: in the Common Market, in the CMEA as well as in the Latin-American integration. The improved international situation has brought about, namely, a huge variety of new economic and cooperation possibilities. Even with a stagnating or declining share of "internal" trade a highly successful economic policy may be pursued "externally", and *new world economic positions can be secured*.

In recent years, for example, the Common Market – as an organization oriented towards the world economy, i. e. "externally" – first concluded a free trade agreement with the EFTA countries, then granted preferential tariffs to 50 developing countries under the Lome agreement, it signed an agreement with the most advanced Mediterranean states, as well as with China, carried on discussions with member states of the Arab League, the CMEA, etc. The agreements have been concluded with partners who represent 60 per cent of world trade.

The foregoing examples make it clear that the above-mentioned three indicators (development of home economies, weight and share of the "internal" trade, the share in world trade) are interrelated, and mutually complementary; even if, in certain periods of development, and depending on the world economic environment, at times either the internal or the external trade enjoy greater possibilities.

*Export orientation* as a direction in economic policy can, of course, never be exclusive. Generally speaking, economic policy is the resultant of complex relations, systems and structures of interests. Therefore, it represents not only requirements, but *proportions as well. If sound proportions are hurt*, every economic policy will liquidate itself, since it will necessitate corrections and shifts in proportions. It should be thus obvious, that even within an export-oriented economic policy there may occur situations, relations and possibilities, in which import substitution may produce satisfactory, or very good, or much wanted results. In such a case it must be preferred. It must also be taken into con-

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sideration that an equilibrium must be maintained, and the growth coefficients of imports are usually higher than those of exports. A detailed analysis of these problems would need a separate study, but we think that so much is enough for the message of the present study.

#### The system of conditions of export orientation

A consistent export orientation of the integration has, of course, a strong and complex system of conditions. We shall not try, of course, to fully explain this system of conditions, nor to explain all aspects of the various components (factors). From the latter we shall emphasize three groups: factors of economic policy, those connected with the economic mechanism, and foreign policy and diplomatic components.

In the economic policy sphere it is necessary first of all to assert the importance and role of the "external" relations also in the decision sphere (in planning). In our days this involves not only that world economic aspects must be adequately observed in development decisions, but also that certain activities have to be put expressly at the service of increasing exports. In the course of making decisions on "external" exports the "complementary" (associating) abilities of the other socialist countries must also be taken into consideration. In that case partly the building up of the production and servicing background of the export sectors would not demand capital and labour exceeding the realistic possibilities of national economies, and partly this background would become available at shorter terms and in higher quality. It would be a further important factor that satisfaction of the "external" demand could be achieved through intensification of internal cooperation, that is, "external" relations would not be developing at the expense of "internal" ones.

Such division of tasks would allow the CMEA countries to attain sooner the level of "world market competitiveness" in the quality of products and in delivery terms. But we interpret the concept of world market competitiveness not only in terms of quality, output, price and delivery deadlines, but also as marketing abilities, forms of connexions with the market, and an active international trade policy. On today's and tomorrow's world market it is increasingly difficult to sell without cooperation with partners and without becoming embodied into the market processes.

It is interesting (and perhaps also characteristic) that in socialist countries problems of the "oligopolistic market" have been investigated exclusively by theoretical economists, though it should be obvious that oligopolistic organizations influence also the export possibilities and conditions of socialist countries. An organic joining into market processes is particularly important in the case of finished goods, research-intensive goods and products affecting the technological system. This joining may assume, of course, various forms: such as cooperation, association, division of tasks, regular cooperation on third markets, etc.

It has to be recognized that development has new achievements not only in the scientific and production fields, but also in those of economic, market, and trade organization.

The methods of acquiring modern technologies are related seemingly only to "imports", yet in reality they are related to exports and to comprehensive and permanent cooperations as well. (We do not mean the problems of adaptation, but those of purchasing.)

This problem has obtained a particular importance on account of the fact that it is often multinational firms that possess modern technologies and know-hows, and without long-term agreements they are not always willing to hand over licences and know-hows.

Finally, the importance of the information system has to be mentioned, which may provide the basis for flexible yet not precipitated decisions and economic actions.

When "external" relations are to be intensified, also the mechanism of integration must be brought up-to-date. For the sake of simplicity, we shall not dwell here on such details, that the economic mechanism ought to be modified and improved already because of purely "internal" interdependences.

Yet in the case of intensifying "external" relations and export orientation it will be particularly important that the mechanism

a) should follow the effects and signals of the world market quickly and reliably,

b) should adequately reflect the changing inner structure and value proportions of inputs,

c) should exert sufficient "pressure" and incentive for prompt action,

d) should clearly link the activities of producing and foreign trading firms with selling on the world market,

e) should provide for adequate connexions betwen "internal" and "external" activities.

We do not wish now to deal in detail with problems of the economic mechanism, since we have done so in a number of studies and in other contexts, but we think it necessary to make just one or two references. The necessity for "pressure" and incentive has been mentioned because experience has shown that *incentive in itself is not sufficient*. There are economic leaders and enterprises for whom and for which incentive is enough, but in most cases "pressure" (in the form of world market effects) *is needed, because that is what provokes action*.

With incentive – or in spite of it – many economic leaders and units will refrain from action or will vacillate between action and inaction.

If "internal" and "external" activities are adequately connected (for example by means of "financial bridges"), also the internal economic mechanism will start on the way of changes and modernization and may finally reach a state in which *the two kinds of activities approximate each other and are closely interactive through the bridges.* 

Finally, it is by all means necessary to considerably strengthen the "economic diplomacy" organizations and activities of the CMEA and the member countries. In our age everybody is engaged in economic diplomacy, from heads of states and governments

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(summits) through toreign ministers to foreign trade and other ministries. This process and the governing reasons and motives will continue strengthening. Such problems come increasingly to the foreground – from global questions through cooperation between integrations to systems of conditions for trade policy and cooperation – as necessitate an extremely active, continual and collated economic diplomacy mindful of interactions. In this respect it is not enough to tackle only problems that have already arisen – even though their number is large – but it has to be considered actively and with foresight, what "counter-items" we can offer to those whom we expect to improve conditions. All those situations, approaches, coinciding interests and constructions must be continually observed, in which other states, or other integrations are working.

It is understandable that this sphere of action of economic diplomacy did not appear in the period of "cold war" or "limited opening". Today and in the coming years, however, these tasks will grow in weight and importance. It is obvious that economic policy and foreign economic tasks cannot be accomplished merely or even primarily by diplomatic means, but it can certainly be achieved that economic diplomacy should be able to *promote* the solution of problems whose economic conditions already exist or can be created within a short time.

The CMEA's fitting into the world economy (the external sphere) from the export side - through adjustment to the requirements of interdependence - may promote efficiently the solution of the fundamental problems of socialist economies in the coming decades.

These fundamental problems are the following, proceeding from lesser problems to the graver ones:

1. An intensive development of socialist economies under the new growth and development conception (saving of energy and materials, recycling, re-use, emphasis on more durable goods and quality factors, for example life style, etc.) through adaptation of the CMEA to these new requirements.

2. A many-sided development of East-West economic relations in accordance with the requirements of the new world economic situation and interdependence, and based upon mutual advantages and guarantees, long-term cooperations and agreements. Such East-West cooperation will become an organic part of the *peace structure* which has to be developed by a number of other means as well.

3. Acceleration of the economic development of the third world through *trade, ex*tensive cooperations and aid. A fast economic development of the third world is one of the basic preconditions that bearable economic conditions should develop on our globe. For the past – for colonization and its consequences – socialist countries are in no way responsible, yet for the future they are, since they have immense direct and indirect influence on its formation (through ideas, certain efforts, and processes originating from them).

4. Promotion and initiation of solving *global problems* by means of a wide international cooperation.

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5. Initiation and promotion of the extablishment of such circumstances in world politics and world economy, which allow that countries with different social systems and state of development can help each other in solving economic problems, each preserving their special features. Only in this way will it become possible that the various economies – and especially the economies of developing countries – should progress fast according to the new growth dynamics, while also global problems should be solved, and humanity should be less menaced by the side-effects of development.

Organization of the system of "external" relations of the CMEA upon new grounds (joining in the world economy from the export side) is a decision for which there exists in fact no alternative. Namely, in the case of a contrary attitude – which may also stem from postponement of decision – the CMEA would not only cause itself and the member states unsolvable political and economic troubles, but would also bring the world closer to an overall economic chaos. The decision may be of course postponed, yet postponement is not a true alternative: it is but an evasion which will spoil the conditions of joining.

Such an economic world programme – evolved and hallmarked by the socialist countries – may convince the peoples of the world with its results and success that the socialist economy is not only able to eliminate the faults and weaknesses of capitalism, but – in this period full of uncertainties, nervousness, and dangers – it also can open up new possibilities of economic cooperation and development for humanity.

#### ПОДКЛЮЧЕНИЕ СЭВ К МИРОВОМУ ХОЗЯЙСТВУ ПРИ СМЕНЕ ЭПОХ МИРОХОЗЯЙСТВЕННОГО РАЗВИТИЯ

#### Й. БОГНАР

В статье рассматривается система связей интеграции стран СЭВ со «внешним миром». В период возникновения СЭВ внешнеэкономические политические и оборонные условия диковали как единственно возможную стратегию для социалистических стран замещение «внешних» экономических связей «внутренними», то есть ориентацию на самообеспечение. Такая ориентация «во внутрь» в развитии социалистической интеграции успешно выдержала испытания периода «холодной войны». Однако в середине семидесятых годов уже стало явно, что как внешние, так и внутренние условия экономического развития социалистических стран коренным образом инменились. Автор детально рассматривает, какие факторы обуславливают необходимость новой стратегии развития социалистической интеграции и интенсификацию связей с мировым хозяйством, перехода от импортозамещающей политики к ориентации на развитие экспортных отраслей. Это, в свою очереди, требует пересмотра не только экономических политик, но и всего комплекса общественно-экономических структур, механизмов хозяйствования социалистических стран, изменения форм и методов во внешнеэкономических связях с развитыми капиталистическими странами и странами «третьего мира».

Acta Oeconomica Vol. 23 (1-2), pp. 17-37 (1979)

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#### L. CSABA

#### SOME PROBLEMS OF THE INTERNATIONAL SOCIALIST MONETARY SYSTEM

The article examines whether mutual advantages are realized in the exchange of products of different capital intensity in the trade between CMEA countries or whether they are created only through the investment contributions. According to the author neither the deviations of CMEA prices from world market prices nor the capital savings attainable through potential import substitution provide sufficient grounds for challanging the existence of mutual advantages. However, the problem of investment credits is unsolved under the present conditions of the CMEA financial system. For bringing about a mechanism of economic cooperation that would create generally favourable conditions for international credits further steps are needed.

"In my opinion it is incorrect and there is no need to make the appearence that the collective currency is money in the CMEA community as are the convertible currencies in the capitalist world... For the time being the transferable rouble can be used to pay only the planned delivery of commodities and the services performed, if they are comprised in the international agreements. It follows that the international money of the CMEA cannot be considered to be general equivalent, that is, money in the sense that its holder – once he has acquired it – can buy for it on the market almost without limits." [1] "The attribute 'transferable' qualifying the negotiability of the transferable rouble used as money of account expresses an *intention* preceding real practice." [2] This is how most acknowledged Hungarian experts on the issue sum up the present situation of the international socialist monetary system. The bottleneck character of the contemporary CMEA cooperation mechanism pushing market categories and laws into background has become increasingly conspicuous because of events in recent years, i. e. world economic changes and the – partly joint – reaction to them.

It is known that the mechanism of bilaterally balanced trade specified by quotas corresponding to the needs of an import-oriented national economic planning, in physical terms and using material balances amounts, as a matter of fact, to an "extension" to international level of the system of material and technical supply and of delivery contracts used in domestic directive control, thus ensuring also for the categories and laws of commodity production a role fitted into the logics of the model of centralized control and management. In other words, it is clear already in the first approach that commodity and monetary relationships within the CMEA differ in substance from the interpretation of commodity, monetary and other categories developed, as regards approach, on the basis of market conditions under free competition and theoretically based on the neo-classical concept. That is, their being "repressed" surely *does not mean* that condi-

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tions *actually* corresponding to neo-classical ones are existing, only they assert themselves to lesser extent. From the dialectics of the objectivity of socialist commodity production (meaning that its interest relations exist independently of whether they are recognized or not) and of the *non*- or limited and partly distorted enforcement of market categories\* respectively, it follows precisely that in a centralized economic mechanism — both at national and at international levels — categories, laws, processes (and motivations!) of the free market do *not* assert themselves, but interest relations of commodity production are expressed *in another way*. How and what do then the "repressed" categories of the commodity producing economy reflect? Some interesting conclusions can be drawn from the examination of this issue when the sliding price basis and investment credits as new elements in the monetary system of the CMEA are examined.

#### What does the sliding price basis actually mean?

Prices valid in bilateral relations are determined by member-countries of the CMEA on the basis of uniform principles of price formation, according to the variant of the Bucharest pricing, principle amended in February, 1975, i. e. according to the sliding price basis. There are two common features characterizing both the old and the new pricing principles.

On the one hand, prices used in the intra-regional trade are based on world market (chief supplier) prices. The reason for this is that the centre of the world market price is the international value, i. e. it expresses in some way in the last resort the socially necessary and recognized inputs taken in an international sense. On the other hand, these prices have to be "cleaned", since on the world market monopolistic elements, speculation, power relations and extreme cyclical fluctuations assert themselves, from which – in the opinion of the highest leadership of all member-countries of the CMEA – the economies of socialist countries have to be protected. A way to achieve this is the averaging of main market prices of the last five and three years, respectively. This means that averaging is not the only way (the period was also changed to 5, 3 then again to 5 years, but with yearly modifications), furthermore also other methods can be applied in case of necessity. "In case of necessity" includes according to the pricing principle as well as the resolutions of the 29th and 30th CMEA-Sessions all such cases, when the dominating effect of the afore-mentioned factors can be unambiguously shown.

The question is how to evaluate from this viewpoint the explosion of raw material prices on the world market in 1973-74. As in recent years several analysis have been published on this issue, so it will suffice only to summarize them here. According to this summary there were two equal factors of the explosion of raw material prices – or at least of its main component the oil crisis – namely an economic (natural scarcity, as

\*This distinction was firstly applied by W. Brus [3] and this connection was expounded also by him.

manifestation of the limit to growth in the development of relative prices) and a political one\* power and political considerations of the US Government on the one hand and business policy ones of transnational companies controlling raw material production, on the other. This circumstance is reflected in the minutes of the 11th Congress of the HSWP, too: the raw material and energy problem "has sharpened partly for objective reasons and partly in consequence of the manoeuvres of international capitalist monopolies."[4]

At the same time, there still are certain economists who attribute the price explosion fully and exclusively to economic reasons and thus regard also the increase in raw material prices within the CMEA not as a consequence of elastic adaptation to changing world trends resulting from the modification of the pricing principle, but as a process tending towards the development of an economically just price structure.[5]

However, 'justness' is an ethical and not an economic notion; therefore the category of just price stated in the code of Emperor Justinianus in the 6th century is of no use: it is an empty notion devoid of contents in economics. A theoretically good – desirable – price is the one which ensures market equilibrium and mutual advantages for those participating in the exchange. It cannot be founded economically that with unchanged production costs and practically with – structurally – unchanged demand-supply relations prices should increase to fourfold from one day to another. This could only be – and this happened in reality, too, – a "political price" forced with monopolistic power instruments and motivated by the economic and political global strategy of the United States\*\* even if it asserted itself an existing and well-founded economic trend.

To the extent price changes result from monopolistic and political factors, they should be considered – according to the CMEA pricing principle – as cyclical fluctuations to be filtered out. While recognizing that the application of the sliding price basis provides increased possibilities in the trade between socialist countries for a better enforcement of economic rationality, on the basis of the foregoing it still seems to be a contradiction in terms that this pricing principle has been introduced precisely under the effect of the events of 1973–74. As a matter of fact, in the sense of the same pricing principle precisely the prices of 1974–75 ought to have been filtered out because of their cyclical character, what is more, it would have been expedient not to take them into consideration at all, but to apply 1973 and later on actual world market prices, respectively.[6]

Namely, the change-over to sliding price basis did not imply a modification of any basic elements of the pricing principle and did not at all affect the reasons for the application of this pricing principle. In the present system of contractual prices changes in capitalist main market prices alone will not give any reason for changing prices valid in

\*The role of the political element has become even more conspicuous in the recent oil price hike of early 1979 when an oversupply is followed by price increases. [46]

\*\*In 1979 with the dissatisfaction of both the conservative and the radical wing of Arab states with the Camp David agreement, using the Iranian events as a façade. Cf. with production and consumption statistics of OPEC, quoted in [46].

the socialist foreign trade in the future either, precisely because of the two-element character of the pricing principle. This is the more so, as has been creating conflict of interests in the relationship among socialist countries ever since 1951, the coming into exsistence of two different prices valid on the two world markets. Even before 1973 buyers were interested in purchases from the socialist world market when for sellers sales on the capitalist world market seemed more advantageous. A socialist country was interested in sales on the socialist world market when for the other socialist countries buying on the capitalist world market was advantageous. [7] This statement is valid only to articles with two markets, because the so-called soft goods are not sensitive to prices (in this context), since there is no market alternative.\* From this aspect, therefore, there was no qualitatively new situation in 1973-74 (forcing a modification of the pricing principle), but only a contradiction, involved in the CMEA-integration already for long, has become sharper. Of course, political viewpoints (e.g. aid) are always asserted also in the foreign trade of socialist countries, but these should not be mixed with economic viewpoints, if only for being able to unambiguously state what sacrifices are and/or should be made, by the individual countries for political considerations.

In connection with the sliding price basis an economically sound standpoint of principle has to be taken, independently of the problem of "filtering out" and the concrete price level of raw materials.

First, it has to be regarded as a decision of conceptual nature that with the modification of the pricing principle the CMEA-countries have discarded at political level the not-so-novel ideological argument according to which elastic changes made in the prices of socialist foreign trade more frequently than 5 years, e. g. yearly, contradict the basic principles of socialist planned economy.

Secondly, precisely by taking the prices of only three years, 1972–1974, as a basis for 1975, in the interest of a more rapid transition, it was expressed that the new pricing principle serves a more rapid *adaptation* to the world economy, to prices on the capitalist main market. Thus, no mention is made of any "just price structure" as before. This is not surprising, either, since we are not living in an era of uniform communist world economy, but in that of a world economy full of conflicting national and regional interests and divided by social systems, when it is impossible to determine – because of deviating interests – which prices and why would serve best the harmonious development of the world economy as a whole and within it that of the individual parts. The question of principle is: if it did not serve better adaptation to the world economy, then the changeover to a sliding price basis could not be maintained theoretically.

Thirdly, some practical consequences may be mentioned. It is clear that until raw material prices are increasing on the world market, the inner raw material prices of the CMEA will be nominally lower than world market prices (which, of course, does not

\*Some hard goods, too, lack the above alternative, as they are, qualified as hard ones because of their general shortage within the CMEA (e.g. meat which is overproduced on the capitalist world market).

mean that it is always more economical to import from CMEA-countries, because this can only be judged if import costs are compared to export receipts). However, even if we accept that high raw material prices will be maintained also in the long run, latest developments indicate that — as a matter of fact — relative prices of raw materials are not further rising, what is more, there were several periods when even nominal price increases stopped. In this case the internal raw material prices of the CMEA might be higher than those of the world market. This is no problem — in view of the connection between the structure and volume of exports and imports, under the conditions of bilateralism. What rather seems to cause some trouble is that with the present prevalence of the theory of "just prices" it cannot be excluded that, on the peak of the raw material boom of the CMEA, endeavours qualifying this price structure as the realization of just prices and aimed at their conservation might come to the fore with the slogan of stability. (Thus, the freezing of prices would impede the otherwise unavoidable penetration of prices of finished products.)

It is natural that foreign trade prices are after all always the results of bargaining. Theoretically, prices of international trade should ensure forms of motion for the contradicting economic interests of buyers and sellers. Prices of the capitalist chief supplier are applied in the pricing principle of the internal CMEA-turnover precisely because – within the already mentioned limits – they inform the best about where the contradicting interests of buyers and sellers will become balanced. This is why the changeover to the application of the sliding price basis can be considered as an important step forward in the development of the system of economic instruments of the integration both in the practical and the theoretical sense.

#### On the relationship between prices and advantages

The purpose of the application of the sliding price basis – but in a wider sense also that of the two-element principles of common price formation – is to ensure the assertion of mutual advantages in the international division of labour among the CMEAcountries. This, however, should be complemented by the statement that *favourable or unfavourable CMEA relative prices alone are by no means identical with advantages or disadvantages effectively resulting from foreign trade for a given member-country*. An important feature of the intra-CMEA trade is the striving after a definite bilateral linkage in kind – in everyday usage of "hard" and "soft" goods – in the exchange. The contraposition of "hard" goods with similar ones in kind in the international exchange is naturally nothing else – but a specific form of appearance of the law of value, of the law of equivalent exchange, on the specific, "physical" market of CMEA-countries.

The contraposition in kind of hard goods (in terms of volumes measured at world market prices) makes the exchange of CMEA-countries in this respect really more and more "equivalent", but also irrational from the aspects of joint advantages and from that of special advantages of the individual countries to be gained from the international

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division of labour. As a matter of fact, this prompts the individual countries to neglect natural endowments and rankings by national productivity or relative capital intensity: for hard goods similar ones have to be given in a certain proportion by all means, or, this not being possible, domestic production has to be provided for, regardless of production costs. From among the several examples for this fact let us only indicate that this factor has "promoted" the development of Hungarian coal-mining and of Bulgarian non-ferrous metallurgy. [8] On the basis of the foregoing it does not seem to be a daring statement that in this particular medium hardness is to some extent still a more important factor of advantages than price (an analogy: shortage of goods on the domestic market with fixed prices). This is so even if - resulting from the peculiarities of the CMEA trade - hardness is a rather indirect and subjective mirror of the mutual demand for each other's products of the CMEA member-countries. Namely, - as against the price of world market origin it still reflects after all and in some manner this mutual demand. Such an increased consideration of hardness is justified by the proved theorem according to which the socialist world market price - as against the capitalist world market price - has no objective lower or upper limit determined by economic laws, [9, 10] This supports the not at all new view that the existence of investment contributions is related to the subordinated role of prices and market categories, in general. Investment contribution whose role has spectacularly increased in recent years and which, with an adequate economic foundation, may be a form of mutually advantageous foreign economic cooperation amounts in itself to a certain price increase. The extent of price increase can be quantified: it is equal to the value of credit discounted for the corresponding moment (t) of the time of expiry. [11] From this follows that investment contribution (credit granting) and price increase can be taken into consideration as alternative solutions as means for eliminating a given disequilibrium.

When examining the interrelations between prices, hardness, and mutual advantages it seems to be expedient to review the concepts challanging that mutual advantages assert themselves in the CMEA-trade.

The basis of economic relations between socialist countries is assertion of the principle of mutual advantages. No socialist country may be interested in obtaining one-sided economic advantages at the expense of other socialist countries in the course of cooperation. However, some publications were issued both in Western and in socialist economic literature whose authors expressed their doubts whether in the international economic cooperation of socialist countries this principle was enforced at all or from time to time.

In Western economic literature pioneers of the *price discrimination debate* were Horst *Mendershausen*, then Franklyn *Holzman* and László *Zsoldos*. According to Mendershausen [12] the trade of the Soviet Union with Eastern-Europe computed at West-European prices shows that the Soviet Union charged higher prices for its exports to and paid lower prices for imports from Eastern-Europe than for those to and from Western Europe. *Holzman* challenged this statement of Mendershausen. [13] In his opinion the CMEA-countries form a specific customs union aimed at a high degree of

autarky, not through discriminative tariffs, but by means of the direct control of foreign trade. This policy has two important consequences: on the one hand, domestic and world market prices are deviating from each other and, on the other hand, members are not selling more expensively nor buying more cheaply, outside the CMEA, but are often selling at lower and buying at higher prices, than those on the world market. Zsoldos completes this statement with some views referring to Hungary. [14] He made hypothetic computations in order to determine the possible export revenue of Hungary had the goods sold within the CMEA been exported to the West. According to Zsoldos's computations this would have meant losses amounting to several million foreign exchange forints for Hungary in the 1950s. At the same time he also stated that his conclusions were not contrary to those of Mendershausen: namely, Hungary bought at higher prices and sold at lower ones within the CMEA than those on the world market.

This argumentation, however, is void. Namely, the fact - to which otherwise also Holzman drew attention in the debate - is well known that (in general) all CMEAcountries achieve worse results in the Western realization of their goods saleable on both markets than in sales for roubles. This reflects first of all mutual economic preferences, i. e. that member-countries take over each other's products also with less favourable conditions than Western ones as regards terms of delivery, prices, quality and services. Furthermore, price gains lost in consequence of discriminatory Western trade policy should not be underestimated, either. The general character of this situation affecting all countries allows us to compute a specifically interpreted index of terms of trade for each market, indicating mutual advantages for products really sold on both markets. This can be done in such a way, for example, that export prices on socialist and capitalist markets of Hungarian export goods saleable on both markets are compared, and for the same products also export prices of the USSR, to the socialist and the capitalist markets, are compared (at the official rate of exchange). If the value of the indicator is higher than 1 for both countries, and this is supported by the computations,\* then we can only speak about mutual discrimination or mutual preferences testifying on both sides to the reciprocity of results and effects of trade with each other.

Another contestation of the mutual advantages of CMEA-trade also appears in literature. Also such views are known according to which net exporters of finished products obtain one-sided advantages from the Soviet Union, because up to 1975 raw material prices were low in a double sense (as compared both to prices of finished products and to world market prices), and also because the Soviet Union has to engage 3-3.5 times as many fixed assets in her economy owing to the capital intensity of her raw material exports, than if compensating imports were substituted, i. e. if goods purchased in the CMEA-trade were produced in the Soviet Union. [16] This statement has been taken over by several authors since then, but without any further exposition pounding

\*In Hungary, such computations were made by Márton Tardos and Ågnes Nagy in 1976, in the Institute for Economic and Market Research.

or completion, and thus it has spread in economic public opinion so to say on the basis of common consent. [17,18,19,20]

Let us now neglect the fact, that behind this argumentation the both politically and economically outdated concept can be found according to which foreign trade is only a necessary evil for the Soviet Union, expedient only for purchasing goods not at all producible in the country, furthermore that foreign trade is not a tool for the optimum utilization of scarce production factors (i. e. in the last resort a matter of efficiency), but a sacrifice made in the interest of peaceful coexistence and of the socialist community. Soviet economics and economic policy have already long transcended this view, thus it need not be criticized in detail. It is enough just to analyse the two main arguments: i. e. the *level of raw material prices* and *capital savings*.

As regards the first arguments, it should be recalled first of all that according to computations of Soviet economists [21] production costs per ton of crude oil amount to 10-12 roubles at current prices (fco western border), which means that its export *cannot* be considered as losing even with the 17 roubles/ton CMEA-price valid in the period 1971-1974 and considering the depressed price level of means of production. But, since also a theoretical and not only a statistical-accounting problem is involved, this requires more detailed analysis.

Since prices and advantages are not identical on a market with fixed prices and a centralized mechanism, it would be a rough-and-ready argumentation to conclude unambiguously and directly on losses from low prices – and *vice-versa* – in this medium (mechanism). Namely, raw materials were hard goods already before the price explosion which had to be paid for with hard goods (in consequence of the law of value enforced in the specific bilateral barter trade even if in a particular way).

The position of the USSR as net raw material exporter could be an argument advanced against this only if, on the one hand, there were not five, but only two main commodity groups, and on the other hand, if – over and beyond the above restriction – a mutual and unambiguous correspondence could be established between the notions of raw material and hard goods, as well as between products of the machine industry – or finished products – and soft goods. This would be, however, an exaggerated and unfounded generalization, since it is obviously not so: beef is, for example, neither raw material, nor finished product, and yet one of the hard goods, or, a counter-example for the second statement may be that surgical instruments belong to the main commodity group of machinery and are nevertheless considered as hard goods.

Has not the role of hard and soft goods been overemphasized in the argumentation? In this context some well-known interrelations might be recalled, thus for example, that sellers usually try to grant price reduction during the bargain for products which, they know, will not be included in the turnover of the next year, because when making the yearly specifications of the long-term agreements these products will, for some reason, not be delivered to the given country. Thus, it often occurs that precisely prices of more valuable or even shortage products are reduced, while prices of less valuable ones remain invariably high. In this way, despite the fact that also enterprises are drawn into

the negotiations, little attention is paid to the principle that the relative prices should be proportionate to the value in exchange, the use value, substitutability or to the technological processes of products. Because of this circumstance prices are deviating not only from capitalist world market prices, but are in sharp conflict also with the proportions required by inputs, demand and supply within the CMEA. [22]\* This latter is otherwise an immanent contradiction of the application of capitalist world market prices and results from the pricing principle as such. [24] This is expressed also in such facts that until 1971 prices were agreed upon separately, independently of delivery agreements; the coordination of plans is going on mainly in physical terms even today and one-sidedly determines prices (in the sense that prices instead of influencing the selection of objectives reflect the results of decisions made on physical quantities). The lack of an agreement on price can be no reason for withholding or cancelling deliveries. This situation has not been changed by the switch-over to a sliding price basis, what is more, even the switch-over itself was enforced retrospectively. That is, the flow of commodities considerably precedes in time that of money also further on, the latter does not influence, but reflects the former. In other words, there is no metamorphosis of commodity whose essence lies in the separation and independence of the commodity side from the money side.

Since the functioning mechanism is an *immanent element of price*, and it is the medium of enforcement of advantages as well, this *requires in our case the joint consideration of price and hardness*. From this it follows that low raw material prices before 1975 alone will not justify the uninterestedness, the insufficiency of financial interestedness or the one-sided disadvantages of net raw material exporters. This is so also on account of the fact that – as we have seen – price cannot have any constraining or expanding effect on turnover in the given system of cooperation, it does not reflect demand and supply relations. Even if it did, excess demand would still not have the effect that a price increase should ensure the interestedness and effective possibilities of producers to increase supply (additional investment resources for enterprises in the extractive industry). This is so not only in principle, but also in practice: as it is well known, raw material deliveries of the Soviet Union are more slowly increasing – to all smaller CMEA-countries – in the present plan-period than between 1971 and 1975, and this trend will presumably continue also in the 1981–85 plan-period or might become even more characteristic.

As a next step it might be raised as a natural requirement: is it possible to construct a hardness-profitability indicator, that is, an indicator that would simultaneously reflect both the price and the hardness of goods?

Nothing seems to be simpler than that: let us determine the scarcity of the individual goods and express this scarcity in a certain percentage of the price, in the form

\*If market economies, as well as the joint application of bilateral and multilateral accounting are supposed, it can be proven that *between clearing partners* the price of the same product will necessarily differ from each other and also from the world market (multilateral) price by countries. [23]

of *agio* or *disagio* by products and countries, as it is expressed in the language of prices in the bilateral turnover between market economies - supposing a regulation through the rate of exchange by countries. [25] However, this is both theoretically and practically impossible. Theoretically it is impossible because a precondition of constructing the indicator would be a close correlation between hardness and price. But this is not so, since in this case the deviation between demand and supply would be (would have been) expressed not in the way characteristic of the market with fixed prices (shortage goods = hard goods), but in the price according to the laws of market with moving prices; or at least the statement should be correct that a price increase has a favourable effect on the interestedness of producers and on supply, too. However, this is necessarily not so in the system of economic control and management based on plan directives - apart from the market of consumer goods and labour -, since the essence of the system lies precisely in that the independent enterprises cannot exercise the right of decision-making concerning investment and development (because this right is reserved for the centre). The enterprise makes calculations not before, but after the decision-making. In this way the planned financial result is a passive mirror of the system of compulsory prices and indicators. Therefore, the computation expressed in terms of money does not give any adequate picture for the central agency about profits or losses (meaning by this the real efficiency of enterprise management). In other words, prices and thus also profits are necessarily not success-indicators, they do not show the efficiency of management. [26] This role of prices obviously anticipates the doubts connected in reality with the foundation by domestic prices of investment efficiency computations. But this problem belongs already to the second group of arguments - capital saving.

## Prices and capital-saving effects in the socialist international division of labour

Another type of arguments querying the mutuality of advantages in CMEA-trade refers to the unequality of capital saving possibilities. These computations are undoubtedly correct mathematically, but the conclusions drawn from them for economic policy and for theory are already less so. The following is involved.

#### Methodological and theoretical problems

It is known that in the USSR the efficiency of investments is computed on the basis of the formula:

 $\frac{\text{investment costs}}{\text{gross output}}$  (both valued at domestic prices).

Furthermore, also the Soviet price theoretical principle and practice of price formation are well known which reject the application of market equilibrium prices under socialist conditions and, according to the general practice of centralized mechanism, the structure of national economic accumulation is decided upon directly by the centre and in physical terms. In other words, investments are distributed not on the basis of market considerations. [27, 28] And, if this were still intended, then – following Oskar *Lange* and the Soviet mathematic school – the capital market would be simulated and assets and the alternative efficiency of their input would be taken into consideration at prices *computed* from the model (and not at real current prices).

Therefore, the authors who conclude on the basis of computations made at actual prices of the Soviet economy on "an inherent bias for capital-intensive exports, resulting from false prices" [45] and practically do not consider the foreign trade in products with deviating capital intensity mutually advantageous on this basis, [29, 30] make two methodological mistakes.

On the one hand, they use for purposes of efficiency computations accounting prices thus interpreting them as equilibrium prices. On the other hand, computations on investment efficiency suitable for international comparison can properly be made only on the basis of the formula

cumulated investment costs (both valued at world market price)

net output (= value added)

and in this case agriculture and the engineering industry are at present sectors as much fixed capital intensive as is raw material production.

The thesis that raw material production is of below average efficiency can be queried also theoretically. Nobody disputes the technical and economic fact that individual activities are of different organic composition (of capital) and thus of deviating fixed capital intensity. However, nobody draws from this the conclusion that in a capitalist economy, for example, a shipbuilder makes sacrifices in the interest of a textile industrialist, since the former advances more of fixed capital to production than the latter. From the aspect of the theory of value the case is rather the opposite; the capitalist in the branch with higher organic composition appropriates through average profits a part of the surplus value produced in the branch with lower organic composition. If deviating fixed capital intensity- meant deviating efficiency, the long-term rise in the organic composition of capital could not be understood just as the fact why capital does not flow to branches with lower organic composition. Then, namely, those concerned would not need to make sacrifices for others, but could enjoy instead together the surplus efficiency resulting from the decreasing organic composition of capital. The absurdity of this latter theorem is obvious enough, since technological progress usually "materializes" in the increase in organic composition. Marx had already long given a solution when, summarizing the lessons of the debate between Ricardo and Malthus, he demonstrated how and why value would be transformed into the price of production. For our topic it results from this that branches with deviating organic composition of capital would be of

deviating efficiency merely for this reason only if the centre of price movements were value, i. e. in simple commodity production. It is therefore surprising, that this question should be raised in the context of international socialist trade; and that several economists should consider self-evident that the individual branches were of deviating efficiency merely for technical reasons.

How can then the statistical fact be evaluated that a unit of investment produces different returns in various activities at concrete prices of Hungary and at those of the Soviet Union?

#### First approach: price type and economic efficiency

The particularities of a market with fixed prices and the related equilibrium relationships deviating from those of a market with moving prices are well known. Nor is it usually disputed, that not only the CMEA can be regarded as a market with fixed prices, but, in conformity with its system of management, the domestic economy of the Soviet Union as well. It has been shown why the fixed prices of the centralized mechanism are no success indicators, either theoretically or practically, and thus all such computations may be challenged which conclude from the different capital intensities of different branches on their deviating efficiency. The just nature of this criticism can be illustrated also through an example.

The subject of our criticism is, therefore, the concept that the division of labour within the CMEA would be mutually advantageous only if products of each branch and each country were of identical capital intensity, since the development of production for export would then mean the same burden for each country.

Numerically illustrated: country I has to invest 100 pounds to produce goods A in the value of 20 pounds, while country II 100 dollars for the same value of goods B. Supposing that 1 pound = 2 dollars, this means that country II will obtain a unit of exchange product with half the investment sacrifice, or the period of returns on investment will be twice as long for country I, or that a unit of investment of country II is twice as efficient as that of country I and, therefore, country II will obtain one-sided advantages, because it is not she who produces the more capital-intensive goods A. In other words, she receives double returns on a unit of capital than if she ought to produce A, therefore she saves 100 dollars of capital as a result of the international division of labour. Is this true? Under what system of conditions?

The principle of equal profits on equal capital is characteristic of a price system of the production price type, that is, it is asserted if the social net income produced is allocated proportionately to c. In socialism prices are determined by central agencies – or they are not determined, i. e. free prices are applied, but also this is a result of central decision – and thus the total social m can be distributed also in another way. According to the Soviet economists *Strumilin* and *Kronrod*, e. g. it can be allocated proportionately to  $\nu$ , and from the practice of the socialist countries also the price system of production-cost

type is known, where (with the notation c' = depreciation) *m* is divided proportionately to (c'' + v).

Even without any detailed analysis of the types of prices the conclusion is obvious that if social net income is *not* allocated at the very beginning on the basis of c, but in some other way, e.g. on the basis of v, c' + v, or their combination, then *per definitionem* the deviating m which will be allotted for a unit of investment can only be regarded as natural in price systems other than the price of production type. Numerically illustrated let gross output be: 100c + 10v + 10m = 120, and this is produced by three branches. Let the capital intensities of the individual branches be 70, 20 and 10 units, with labour demands of 3, 3 and 4 units. Let us allocate among the branches 10 social net maccording to the three price types, proportionately to c, v and (c'+v), respectively! In the latter case, for the sake of simplicity we consider engaged and utilized capital to be identical, which is, of course, an unrealistic assumption, but at present not disturbing, either.

proportionately	to	<i>c</i> :	7	2	1
proportionately	to	<i>v</i> :	3	3	4
proportionately	to	$(c' + v)^*$	6.63	2.09	1.27

Are the individual branches of deviating efficiency in the individual cases of allocation? Nothing can be said about this, since merely the result of a single period was divided in three ways. The requirement of equal returns on equal capital is enforced only in the first case, because the 10 m were allocated corresponding only in this case. If, however, 10 m are divided among the three branches on the basis of other criteria from the very outset then it would be naive to raise the requirement that a unit of investment should ensure identical returns everywhere, since this is not possible by the nature of the arithmetic. In concrete terms: with the value type price 3/7, 1.5 and 4 units of returns fall to a unit of capital, with the production-cost type price 0.947 (= 6.63 : 7), 1.045 and 1.27, respectively, which is a natural consequence of the choice of the price type.

Relying on these findings there is one thing we can surely state concerning the efficiency criteria of investments in price systems of the production-cost type, namely, that scarce resources are not rationally utilized when identical profitability is ensured in case of any alternative utilization. From this results that with the concrete prices of the Soviet price system of basically production-cost type neither the principle of equal returns on equal capital, nor the requirement of equal returns on the alternative uses of the last invested unit can be taken for basis when deciding on efficiency.

\*Computation: c' + v = 73 + 23 + 14 = 110

$$10 \frac{73}{110} = 6.63$$
$$10 \frac{23}{110} = 2.09$$
$$10 \frac{14}{110} = 1.27$$

May be, the capital invested in the raw material production of the Soviet Union means less efficient utilization relative to some other alternative use, but this cannot be proved on the basis of deviating organic composition. On the other hand, towards prices reflecting efficiency the requirement can be raised that they should reflect competitiveness on the world market of the entire economy and not only of the raw material sector.

# Second approach: interpretation of the results in a price system reflecting efficiency

Let us suppose that we have obtained the result that the production of product A is twice as much capital intensive and investment in its production is half as much efficient as in the case of product B in such a price system, which fully allows the rational allocation of resources, i. e. it is an adequate orientating instrument for national economic planning.

However, value and price of production are categories of the long-term centre of price movements — of natural prices. The market price is a category of completely different quality, characterized among other things, precisely by the circumstances that it can only accidentally coincide with the natural price. What we have to consider is a price system functioning in reality, i. e. monetary, *market* prices of a price system reflecting efficiency. What does this difference mean?

It means that a unit of investment into different activities brings about useful effect of varying size, indicating *that scarce means were not optimally allocated*, since the optimum state of resources taken in the most general sense is characterized by the fact that an additional unit of resources invested in various activities will produce the same useful effect everywhere. The principle of the levelling of advantages is a general principle of business management in the production of use values and completely independent of the production of value which is a result of abstract labour. [31, 32, 33] Therefore, such a distribution of resources reflects deliberately established economic disproportions.

In the second step the question arises how this disproportionateness is reflected in prices. Specifically for the disputed computations of investment efficiency and for the real prices of the Soviet Union: does the price used for judging the efficiency of investment valuate scarce resources higher?

No doubt, it does not do so in practice, what is more, precisely the opposite is true: the scarcest resource, i. e. the drawing away of resources from the production of the hardest goods seems to be more advantageous and not what is unequivocally required by economic rationality and everyday practice, namely, investment in raw material production.

Even if, because of the interrelations mentioned and in the medium of the centralized system, it is not surprising that prices signal as a rather peculiar "thermometer", it is indeed surprising that certain economists should declare on the basis of the

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signals of this thermometer that the Soviet Union is not interested in investing capital in this activity, but in drawing away capital from here and in investing it elsewhere, and that the net raw material importers should ensure the interestedness of the exporter, [34] since otherwise trade can be realized only through sacrifices made for political reasons.

# Some conclusions

1. It is true that the Soviet Union is the biggest raw material producer of the world, but it is true as well that in the Soviet Union the specific use of materials (per unit of output) is considerably higher than in developed capitalist countries, what is more, it exceeds also the corresponding data of some CMEA-countries (GDR, Czechoslovakia, Hungary) as well. Therefore and also because of certain planning and interestedness conditions, analyzed otherwise also by the Soviet press [35], the problem of raw materials is a source of tension *also for the Soviet internal economy*, i.e. it is a bottle-neck. It is so in the market sense because of the decreasing returns on capital and the increasing materials intensity of the gross social output, and it is true in regional sense as well since the centre of raw material production has been transferred to Western Siberia already in this Five-Year Plan, while manufacturing is concentrated in the European part. [47]

2. Because of the above we can agree with the evaluation according to which it would be a mistake to say that the industrialization of Siberia is a "hunchback for the Soviet economy", but one should rather speak about the *development of an export*. *branch of the Soviet Union which is most successful in Western relations.* 80 per cent of the USSR's exports to the West consist of raw materials (the share of crude oil amounts to 45 per cent alone) and this is the main source of compensation for the decisively non-competitive imports (grain and technology) and a guaranty for her creditworthiness (beside gold production). [36]

3. Therefore, contrary to the views analyzed in the foregoing, the Soviet Union is stimulated – even independently of the effect of internal and CMEA commodity and monetary relations having only a subordinate role – also by its own best, real economic interests to develop the extractive industry, though the prices with which the disputed computations on investment efficiency were made make this appear as the most irrational investment possible.

Now it is possible to proceed in two directions to illustrate that in the CMEA-trade mutual advantages were enforced also in previous periods corresponding to the basic principles of socialist international division of labour, despite the fact that products with deviating fixed capital intensity were exchanged.

Supposing hypothetic, ideal prices and considering them to be identical with marginal costs for the sake of being able to write this in mathematical form, it can be demonstrated through the examination of linear combinations in what price interval and under what constraints the exchange of products with deviating capital intensity will ensure mutual advantages. [11]

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For using real prices, hardness, that is: the extent of shortage ought to be quantified, which is impossible. [37] It has been shown that the position of a net raw material exporter does not involve *ab ovo* losses, since under the terms of exchange of structural bilateralism profits resulting from the relatively higher level of the prices of soft machinery can be transformed into necessary (hard) goods in 0 per cent. The examination of terms of trade by countries supports the economic argument that exports to markets with higher price levels is concomitant with higher import prices and *vice versa*, that is, even the deviation of nominal export receipts does not really prove deviating market efficiency.

Finally, we cannot forget either, that the real possibilities of import substitution are practically often limited (grain), furthermore, that the interpretation of import substitution up to now in connection with capital saving is valid only *if the infinitive availability of investment goods is supposed*, otherwise the real costs of import substitution should be compared with the lost profits of production aimed exclusively at export (at world market prices), provided that the allocation of investments is planned on the basis of this computation. Without this motivation, the above alternative computations are only a mental exercise.

# International flow of investment goods and development of the monetary system of the CMEA

From the theoretical expositions made in the foregoing the conclusion can be drawn that investment credits within the CMEA are no "compensation for losses" or "damages", but — with adequate conditions — they can be one of the methods of a mutually advantageous socialist international division of labour. It should be noted that there was a time when the view used to be rather wide-spread according to which the *safety* of supply with raw materials and energy could be ensured *only* in this way. This concept can be disputed from several aspects.

1. Joint investments into raw material production require considerable Western imports of technology and credits. In the case of Hungary, for example, the direct dollar contents of the investment credits granted by us within the CMEA amounted to 54.4 per cent in the present decade. [38] In other words, the characteristic feature of development projects aimed at import substitution, generally observable in the world economy, appears also in this field, indicating that products of investments aimed at developments "independent" of the world market requirements do not indeed correspond to the demands of the world market. Nevertheless, they require imports and thus the dependence on imports will, after all, not decrease, but increase. The net effect on the balance of trade of such an investment, intended to save Western currency is obvious if we consider that the prohibition on reexports holds also for products resulting from joint investment. It seems that András *Köves* is right when he states that precisely this phenomenon justifies that occasionally also "maize growing may amount to energy

policy", i. e. a *coordinated* treatment of decisions on East-West economic relations on the one hand and decisions regarding the development of CMEA-integration on the other has already become inevitable at present. [39]

2. Economic literature already rather uniformly reflects at present that the importance of the safety of supply taken in the above everyday sense is rather overestimated at times of shock effects produced by the instability of the oil market. Safety and risk, respectively, are quantifiable economic factors (with goods exchanges traded at, for example, the difference between current price and deferred price, rate of interest, etc.), while a "strategic" handling would mean an open neglect of "value aspect", of the costs of the solution, i. e. insurance fee. Countries capable of adaptation to new relative prices through structural transformation and which have worked off the deficit in the balance of payments (Japan, FRG, Holland) put not the safety of supply into the centre of their economic policy, but, on the contrary, they consider the production of raw materials and energy as a part of their general export-offensive economic policy, a factor subordinate to their overall competitiveness on the world market. The Japanese steel industry has remained far too competitive - even with the import- and materials-intensity of this branch - which is indicated also by the successful pressure for "voluntary export limitation" named in the euphemistic term of "Orderly Marketing Agreements" undertaken towards the EEC and the USA. Priority of the safety of supply would result in the development of basic materials industries selected mostly on physical basis that can be well carried out by means of central investments. This decision - together with urgent infrastructural and social tasks - would practically determine the investment structure of socialist countries for the coming plan-period (1981-85) and through developments aimed at import substitution and those of the basic materials industry also the centralized character of the economic mechanism. This would not serve adaptation to the beginning of a new era in world economy, nor allow any considerable further development of the CMEA monetary system.

3. In the international division of labour exchange is transacted between different owners, that is the importance of a cooperation mechanism ensuring a form of motion for mutual interests of commodity producers is obvious. Therefore, it is especially important that in proposals aimed at the further development of the socialist international division of labour the starting point should be the real conditions of the CMEA-mechanism and not an idealized system that could exist in principle following from socialist production relations. Thus, it cannot be queried theoretically, that socialist production relations do not impede the international flow of capital by their nature, nor, what is more, structural intertwining relying on -"solid capital relations", [40] but at present conditions for this are not ensured yet. It results first of all from the general conditions of the cooperation mechanism that member-countries of the CMEA are not interested in credit granting, what is more, they are counter-interested. As a matter of fact, credit granting with the present terms of interest means a forced lending out of national income for a shorter or longer period, and the sacrifice of the average returns that could be obtained at home is compensated only to a small extent by the level and cover of the rate of interest. These

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returns are estimated at 10-12 per cent in the case of Hungary (but according to computations of some Soviet economists normative requirement for returns amounts to 15 per cent). [15] unfolds and proves the exact extent of the normative rate of interest under Soviet conditions. Since the 2 per cent rate of interest is among the items of the synthetic transferable rouble account which cannot be broken down by countries, a raising of the rate of interest to world market level would mean no solution for the problems of either stimulation or income distribution.

A specific possibility of perfecting the accounting system is provided when settling investment contributions, since the cover of interest is solved here. Therefore, it is no nonsense to raise here the problem of the economically justified rate of interest. This would not be an interest accounted according to the present rules of banking techniques, but a share in kind from products of the capacity built with joint resources, similar to the repayment of the share capital of joint investments. This can be practically realized because the products are homogeneous and they can be unambiguously identified, and if it were determined in a constant proportion to the quantity of products resulting from the capacity, then the as yet unsolved problem of revaluation of the credit granted on a sliding price basis would be solved.

4. We have seen that investment credits came into use precisely because commodity and monetary relations within the CMEA are pushed into the background: since prices did not change for years and their eventual change did not necessarily mean the expansion of raw material producing capacity and supply, the economies of CMEA member-countries began to adapt themselves to disproportions ever sharpening between the extractive and manufacturing industry through the plan mechanism — by granting government credits. However, the extent of adaptation is characterized by the fact that the total estimate of Soviet investments in the 10th Five-Year Plan amounts to 620 thousand million roubles, while joint CMEA-investments amount to 9 thousand million transferable roubles and even from this amount not all will be allocated to the Soviet Union, nor to raw material extraction. At the same time, limits to the further development of this form of cooperation are acknowledged at present even by supporters of investment contributions. [41]

5. Paradoxically, the spreading of investment contributions indicated not only the limits of bilateral trade in kind, but also brought *its strengthening*, since the granting of investment credits means practically not so much the delivery of products used for certain investment projects, but hard exports of a given structure. [42] Therefore, we can agree with the evaluation which considers this process and construction transactions, exchanging in the final analysis goods for other goods, analogous with each other, and perceives the two processes as a pair. [43] Namely, both processes make, as a matter of fact, the terms of exchange balanced until now by commodity groups stricter, because not only commodity groups, but kinds of goods are linked and exchanged. In other words, a coming to the fore of the direct exchange of goods and an increasing "naturalization" of forms of the socialist international division of labour, can be observed. (Only

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the sphere of transactions in convertible currencies means an exception to this to some extent.)

Precisely, because bilateralism and determination in kind increased, it is surprising that also such an evaluation was made according to which the party obtaining credit cannot spend the investment credit on goods necessary for him (while for the one granting the credit this form is more expensive than purchase through a normal foreign trade transaction), *since* the purpose of the credit is fixed. [44] Resulting from the missing money function of the transferable rouble (it cannot be spent, freely purchaseable goods are missing) this complaint would be justified precisely if the purpose of the credit *were not* fixed. Namely, at present exclusively hard goods are covered by the credit, following precisely from its fixed character, which is not contrary to the interest of the party obtaining credit.

6. Finally, the connection between the granting of investment credit and the economic mechanism should be mentioned. This form of CMEA-cooperation is given and formulated as a characteristic task of central control: the product, contractor, etc. have to be defined and this can be compared to a kind of central development project under Hungarian conditions (both as regards the level of decision-making and the physical approach). It contributes with its extent -8 per cent of central investments - to the recentralization process characteristic of the Hungarian economy in recent years. In the extent it strengthens this process, it impedes - over and beyond its short-term effects - the development of an internal economic control mechanism creating the conditions for "massive international capital flows".

## References

- 1. VINCZE, I.: A KGST nemzetközi valutarendszere (The international monetary system of the CMEA.) Budapest, 1978. Közgazdasági és Jogi Könyvkiadó. pp. 64 and 220. (Soon to be published in English by Akadémiai Kiadó, Budapest.)
- 2. HAGELMAYER, I.: A gazdasági növekedés és a KGST pénzügyi rendszere (Economic growth and the monetary system of the CMEA.) Pénzügyi Szemle, 1976. No. 10, p. 724
- BRUS, W.: The market in a socialist economy. London-Boston, 1972. Routledge and Kegan Paul. pp. 131-138
- 4. Az MSZMP XI. kongresszusának jegyzőkönyve (Minutes of the 11th Congress of the HSWP.) Budapest, 1975. Kossuth Könyvkiadó, p. 471
- 5. БАХТОВ, К.-ЗОЛОЕВ, В.: Сыревой экспорт СССР на современном этапе. Внешняя Торговля. 1977. No. 2
- 6. BÍRÓ, A.: Megjegyzések a magyar-szovjet külkereskedelmi árszínvonal problematikájához (kézirat) (Notes on the problems of the price level of Hungarian-Soviet foreign trade). (Manuscript). Institute for World Economics of the Hungarian Academy of Sciences, 1976. July, p. 10
- 7. CSIKÓS-NAGY, B.: Socialist price theory and price policy. Budapest, 1975. Akadémiai Kiadó. p. 320
- AUSCH, S.: Theory and practice of CMEA cooperation. Budapest, 1972. Akadémiai Kiadó. pp. 112-113
- 9. Ibid. pp. 87-88 and 92
- 10. SZEGVÁRI, I.: A komparatív előnyök problematikája (Problems of comparative advantages.) (Dissertation.) Budapest, 1972.

Acta Oeconomica 23, 1979

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- 11. TARDOS, M.: A model of intra-regional foreign trade. In: FÖLDI, T.-KISS, T. (eds.): Socialist world market prices. Budapest, 1969. Akadémiai Kiadó, 164 p.
- 12. MENDERSHAUSEN, H.: Terms of trade between the Soviet Union and smaller communist countries: 1955-57. Review of Economics and Statistics, May, 1959.
- 13. HOLZMAN, F. D.: Soviet-foreign trade pricing and the question of discrimination. Review of Economics and Statistics, May, 1962.
- 14. ZSOLDOS, L.: The economic integration of Hungary into the Soviet bloc. Ohio, 1963. Ohio University Press.
- ВААГ, Л. А.: О нормативном коэффициенте экономической эффективностй. Экономика и математические методы. 1976. No. 5. pp. 968–981.
- БОГОМОЛОВ, О. Т.: Теория и методология международного социалистического разделения труда. Москва, 1967. Экономика. р. 15.
- 17. AUSCH, S.: Op. cit. p. 116
- KISS, T.: International division of labour in open economies with special regard to the CMEA. Budapest, 1971. Akadémiai Kiadó. pp. 65-68
- MARER, P.: Prospects for integration in the CMEA. International Organization (Stanford), 1976. No. 4
- DOBOZI, I.: Az energiahordozók a KGST gazdaságában (Primary energy in the CMEA-economy.) Valóság, 1973. No. 1
- 21. САВИСКИЙ, В. Б.: Экономические провлемы развития западносибирьского нефтепровода. Экономика нефтяной промышленности. 1976. № 9.
- 22. AUSCH, S.: Op. cit. pp. 97-98
- 23. KOZMA, G.: Bilaterális mérlegegyensúly és külkereskedelmi hatékonyság (Bilateral equilibrium and efficiency of foreign trade.) Budapest, 1976. Közgazdasági és Jogi Könyvkiadó. Chapter IV
- 24. HAGELMA¥ER, I.: A pénz értékmérő funkciója a szocialista világpiacon (Measure of value function of money on the socialist world market.) Pénzügyi Szemle, 1974. No. 5
- 25. KOZMA, G.: Op. cit. pp. 70-92 and 117-133
- 26. BRUS, W.: Op. cit. pp. 76-80 and pp. 129-131
- 27. ЯКОВЕЦ, Ю. В.: Цены в плановом хозяйстве. Москва, 1974. Экономика. pp. 172–182 and 205–211
- 28. МАЗУР, В. Н.: Экономический ревизионизм. Киев, 1976. Изд. Политической литературы Украины. pp. 187-240
- 29. MARER, P.: Has Eastern Europe become an economic liability to the Soviet Union? In: GATI, Ch. (ed.): The international politics of Eastern Europe. New York, 1976. Praeger Publishers.
- ABONYI, Á-SYLVAIN, I. J.: CMEA integration and policy options for Eastern Europe: a development strategy of dependent sates. Journal of Common Market Studies. December, 1977. p. 143
- ПЕТРАКОВ, Н. Я.: Некоторые аспекты дискуссии об экономических методах хозяйствования. Москва, 1966. Экономика. pp. 52–55 and 100–125
- 32. ERDŐS, P.: Bér, profit, adóztatás (Wages, profits, taxation.) Budapest, 1976. Közgazdasági és Jogi Könyvkiadó, pp. 104-106 (To be published in English by Akadémiai Kiadó, Budapest.)
- 33. CSIKÓS-NAGY, B.: op. cit. pp. 65-67
- 34. DOBOZI, I.: op. cit. pp. 22-23
- 35. ПРАВДА, November 28, 1976. November 10-12, 1977.
- KÖVES, A.: A külgazdasági nyitás: kihívás és kényszer (Opening to the world economy: challenge and necessity.) Budapest, 1980. Közgazdasági és Jogi Könyvkiadó.
- 37. KORNAI, J.: The measurement of shortage. Acta Oeconomica, 1976. Vol. 16, Nos 3-4, pp. 321-344
- KEVEVARI, B.: A beruházási hozzájárulások aktuális kérdései (Topical questions of investment contributions.) (Manuscript.) Research Institute for Finances, Budapest, June, 1977

Acta Oeconomica 23, 1979

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## L. CSABA: INTERNATIONAL SOCIALIST MONETARY SYSTEM

- 39. KÖVES, A.: Integration into world economy and direction of economic development in Hungary. Acta Oeconomica, 1978. Vol. 20, Nos 1-2, pp. 107-126
- 40. DOBOZI, I.: Problems of raw material supply in Eastern Europe. The World Economy. (Amsterdam), 1978. No. 2

- 42. VINCZE, I.: A közös valuta a TR jelenlegi közgazdasági jellemzői (Present economic characteristics of the common currency the TR.) Pénzügyi Szemle 1977. No. 11. pp. 825 and 828-829
- 43. PÉCSI, K.: A KGST termelési integráció közgazdasági kérdései (Economic problems of production integration in the CMEA.) Budapest, 1977. Közgazdasági és Jogi Könyvkiadó. p. 298 (To be published in English by M. E. Sharpe, Inc. White-Plains, N. Y.)
- 44. ШИРЯЕВ, Ю. С.: Экономический механизм социалистической интеграции. Москва, 1973. Экономика. р. 98.
- 45. ROSEFIELDE, S.: Soviet international trade in a Hecksmer-Ohlin perspective. Lexington Books. Lexington (Mass.)-Toronto, 1973. D. C. Heath & Co. pp. 127-130
- 46. The manipulation of World's oil supplies. International Currency Review. June, 1979.
- Размешение производительных сил в стране и повышение эффективности общественного производсмеа. Плановос хозяйство, 1978. No. 11. pp. 3-6

#### НЕКОТОРЫЕ ПРОБЛЕМЫ МЕЖДУНАРОДНОЙ СОЦИАЛИСТИЧЕСКОЙ ФИНАНСОВОЙ СИСТЕМЫ

#### Л. ЧАБА

В статье анализируется реализация взаимной выгоды при обмене товаров различной капиталоемкости в торговле между странами СЭВ, обращая особое внимание на участие в инвестициях. В первой части автор рассматривает скользящую базу цен как средство приспособления к мировой конъюнктуре, что не отменяет один из принятых на бухаресткой сессии СЭВ принципов ценообразования, согласно которому цены СЭВ должны быть очищены от колебаний, вызываемых монополистическими и политическими факторами. Вторая часть, в которой анализируется связь цен и выгоды, оспаривает взгляды, высказываемые в публикациях как западных, так и социалистических авторов, в которых ставится под сомнение, что во взаимной торговле стран СЭВ равномерно и во все периоды соблюдалась взаимность выгоды. Автор указывает: ни расхождения между ценами СЭВ и ценами мирового рынка, ни экономия капитала, которая может быть достигнута с помощью потенциальной замены импорта, не могут в нынешних и действующих на практике условиях экономического механизма стран СЭВ считаться достаточной основой для того, чтобы ставить под сомнение взаимную выгоду, реализуемую в международном обмене товаров различной капиталоемкости. Третья часть статьи анализирует согласование требований инвестиционного кредитования, нынешних условий финансовой системы СЭВ и проведения ориентированной на экспорт экономической политики. В связи с участием в инвестициях возникают проблемы обеспечения, валоризации кредита, экономически обоснованной ставки процентов (и расчета по процентам). Наконец, автор указывает на тот парадокс, который имеет место между практикой межгосударственного кредитования и логикой шагов, необходимых в интересах создания механизма экономического сотрудничества, обеспечивающего благоприятные условия для предоставления международных кредитов.

<sup>41.</sup> DOBOZI, I.: Op. cit.



Acta Oeconomica Vol. 23 (1-2), pp. 39-57 (1979)

# I. LAKOS–G. OBLATH

# RATE OF EXCHANGE AND THE FOREIGN TRADE PRICE COEFFICIENT

The article discusses the differences between the economic nature of the rates of exchange of convertible currencies among themselves and of the rate of exchange used in Hungary, as well as the characteristics of the types of exchange rates the authors consider as useful. It emphasizes the importance of introducing an actually operative rate of exchange in a period when the relaxation of tensions in the Hungarian economy depends mainly on how much more flexibly enterprises are able to adjust themselves to external conditions than they have done so far.

The theories of rates of exchange considered as traditional had been attacked in international literature already before rates became more flexible, yet criticism has become really sharp only in recent years. The main target of the criticism is the so-called elasticity approach<sup>\*</sup>, or, more exactly, its statements concerned with the interdependencies between rates of exchange, national price levels, and balances of payments. There is, namely, a growing scepticism as to whether a change in the rate of exchange may bring about lasting changes in the relative national price levels (computed at the rate of exchange), and, consequently, whether it can exert any significant influence on the balance of trade (and of payments). Although the new trends in the theory of rate of exchange are opposed to one another in numerous respects, they are yet held together — owing partly to their common scepticism concerning the elasticity approach — by their acceptance to some extent of one or an other version of the theory of purchasing power parity.

In studying the Hungarian literature on the rate of exchange, a similar shift in emphasis seems to be present: the purchasing power parity theory is growing in popularity also in Hungary. Otherwise, one of the versions of the purchasing power parity theory has been respected in Hungary, practically since the fact has been recognized that the home currency is not gold. In the literature on capitalist money it has been a long accepted theorem that rates of exchange are determined by the relative domestic purchasing power of the currencies (or, as it said, the "quotient of national price

\*The term refers to the *Marshall-Lerner* condition, which gives, with certain assumption, the sum of the "critical" import demand elasticities necessary for the change in the rate of exchange to exert its improving effect on the balance of trade.

levels").\* What may be considered a novelty is the attempt at using this theorem for determination of the Hungarian price coefficient (multiplier). It has to be added: this theorem is characteristic not of the purchasing power theory parity in general, but only of one of its numerous versions, which happens to be not identical with any of the versions enjoying today an increasing popularity in the Western economic literature. Yet it is beyond dispute that this one, too, is a purchasing power parity theory, which fact may in itself give the impression that the above-mentioned Hungarian conceptions and efforts, as well as the new schools of thought on the rate of exchange – and in a few countries even the practice of exchange rate policy – point in the same direction.

In Hungary the rates of exchange applied in foreign trade, and the economic nature of the rates of exchange among convertible currencies differ in substance from each other; therefore, analogies disregarding this fact may be misleading. Besides, however, even the foundations of a few interdependencies believed to be valid for Western currencies may be challenged. Thus analogies are often not only lame, but totally inappropriate.

In the following we shall try to point out the usefulness of introducing a rate of exchange operational in itself in the sphere of foreign trade. To do so, it will be expedient to recall some seemingly forgotten ideas raised in the course of the dispute about the average rate of exchange and the marginal rate of exchange. It is, namely, our conviction that in our days when one of the most important economic objectives is to increase adaptability to external influences, and to carry out a microstructural transformation in harmony with foreign economic conditions, the conception of the marginal rate of exchange is more timely than ever. It is remarked that the denomination "marginal rate of exchange" is used only out of respect for tradition. The expression is used, namely, to indicate the price of foreign currencies what can be called the rate of exchange without any adjective.

Of course, the substance of the matter is not the denomination, and if only for this reason we must refer to a question related to denomination, yet of much greater importance. We think that beside the expression "the price of foreign currency" not only the adjective "marginal" is redundant, but also the word "equilibrium", brought up as a synonym. Maybe, on this point our conception is different from that of a few advocates of the marginal rate of exchange. It surely differs, however, from the view of those who think that the experience showing a loosening relationship between the fluctuations in exchange rates and in the balance of trade prove that exactly in Hungary no marginal rate of exchange can be introduced, that is, such a rate of exchange as would more or less uniformly determine the amount of domestic currency to be received by exporters for the foreign exchange, and the amount to be paid by importers against foreign exchange.

\*"... without a detailed justification, and relying upon the growing number of concurrent declarations to this effect, it is acceptable that the zone of value, the centre and innermost contents of the rate of exchange is the quotient of the home and the foreign price level". [1]

## Rate of exchange and price coefficient

Among the many different kinds of rates of exchange – which are of an extreme variety from the rates of exchange used exclusively for statistical accounting, through the system of multiple exchange rates of countries with foreign exchange restrictions, to the fixed and floating exchange rates of convertible currencies – we shall deal only with those of economic (not merely of technical and accounting) importance: with exchange rates and price coefficients.\*

We have defined the rate of exchange as the price of foreign currencies expressed in terms of domestic currency. Thus the rate of exchange is a price, and this fact seems to offer a good starting point for its analysis. Price is, generally, an objective economic category from a certain aspect, and so is also the price of the foreign currency. Its objectivity means first of all that its size and changes are given factors for the whole of the economy, more exactly for the firms and institutions constituting it (they have to adjust themselves to it in some way), and with this given factor they can reckon with it as an element orienting their decisions.

The rate of exchange indicates for the whole of the economy, how much a unit of the foreign currency is worth: what it costs and what price it fetches. It signals to the sellers of foreign currencies, that is, to exporters, what "cost level" of earning a unit of foreign exchange is acknowledged at most by the whole of economy, and it gives similar signals — in respect of the still acknowledged cost level of foreign exchange savings — to the domestic producers competing with imports. The buyers (users) of foreign exchange can also obtain objective information from the size of the rate of exchange, since, together with the foreign prices, it determines the price of foreign products to be paid in home currency. In this way it influences decisions on imports (or domestic production and purchase).

The objectivity of the rate of exchange means, on the other side, that in a given economic situation – that is, with the given relative levels of prices, costs and incomes, with the rate of employment and of capacity utilization, with the external position, and with the expected changes of these – the official decision on the size of the rate of exchange is limited to a comparatively narrow zone. Decision possibilities are expanded exactly by the fact that some of the above-mentioned factors of influence are not given, but decision variables, which can themselves be influenced by regulating the size of the rate of exchange.

Therefore, in our interpretation, the objectivity of the rate of exchange does not mean that at a given time-only a single economically justified rate of exchange exists. It means that the size of the rate of exchange and the above-mentioned factors (and a few other ones) are interdependent and, if the determination of the exchange rate is a question of official decision, this fact can be disregarded only at the price of grave consequences. It

\*The differences in economic contents between the rate of exchange and the price coefficient are treated in Bánfi's study. [2]

follows that the existence of the rate of exchange provides objective orientation not only for economic units, but also for economic policy. Whichever the way of the determination of the exchange rate: whether its current level has developed on the foreign exchange market, or is the result of a government decision, its size and its changes have economic consequences, which can be – and in principle must be – taken into account in the setting of macroeconomic targets. With a functioning rate of exchange, namely, an inconsistent economic policy entails directly felt consequences; though the form of appearance of the tension is not at all indifferent (inflation, balance of payments difficulties, unemployment, etc.). At this point it is enough to underline the fact that the existence of the rate of exchange does not only provide orientation for economic policy, but also acts as a controlling factor. The validity of the latter statement does not depend on the type of the system of the exchange rates, either. The system of floating exchange rates expands the scope of movement of economic policy from a certain aspect, yet it narrows it down from another.

In outlining the nature of the rate of exchange a number of questions have been deliberately neglected. The primary aim of our description has been to produce a starting-point or point of reference for the interpretation of the price coefficient.

First, however, we must explain, why we have given up the practice, quite general in the Hungarian literature, that deduces the nature of the rate of exchange from its so-called functions.

Although the different authors usually restrict themselves in listing the "functions of the rate of exchange" and rarely mention more than six, adding up all the "functions" to be found in literature will result in quite a large figure. The quantity is in itself disturbing. If the rate of exchange did or could do all it is usually supposed to do, the world economy would certainly function much more perfectly. At the same time, the listing of the "functions of the rate of exchange" usually substitutes for the analysis, and this collective noun places widely different things beside one another. On the one hand we find such trivial statements as is, for example, that the rate of exchange determines — together with foreign prices — the home price of imported goods and the earnings of exporters (price-linking function). Such is also the stimulating (orienting) function: assuming that the economic units base their decisions upon certain rationality criteria, and external prices are a given thing for them, they sell where they can expect higher returns computed at the rate of exchange, and they buy where they can get a product cheaper. All these are variations on the definition of the rate of exchange.

It is an entirely different problem that a change in the rate of exchange has or may have – in certain conditions – economic effects that can be defined. It may, among other things, influence the rate at wich the price level rises, the level of domestic activity (employment, capacity utilization), and the development of the balance of payments (of trade). These influences are exerted, however, only under certain conditions which do not always exist in reality. They do not follow from the existence of the rate of exchange, but from the fact that certain factors of the economy are considered unchanged, or assumed to be changing in a definite direction (to a definite extent). Finally, in the litera-

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ture we can find also such functions that are practically uninteresting. Such is for example the covering function implying a total absence of customs duties and a permanently balanced trade.

However, we do not feel it to be the main problem that the word "function" often merges widely different things into one another. The main problem is much more than that in this approach the rate of exchange is interpreted one-sidedly as a tool, thereby suggesting that a rate of conversion is made into a rate of exchange, that is into a price, by its ability to fulfil certain tasks considered important in a subjective judgement.\*

Therefore, while we have certain reservations towards the analysis of the rates of exchange according to functions, we consider this approach as an adequate examination method of the price coefficient. The substance of the price coefficient is exactly that the authorities invest the rates of conversion between home and foreign currencies with definite functions. In Hungary these functions are usually formulated in the form of "demands" (wishes) made on the price coefficient (for example: "it should promote an efficient way of joining into the international economic relationships").

The example of the "function of value preservation" illustrates the nature of the price coefficient. As opposed to certain frequently mentioned functions that express vague ideas, rather than reality (for example balancing function), a task of the price coefficient may in fact be to influence the domestic price formation of imported goods. This means that the size of the price coefficient may be basically determined (under given conditions) by the effort to keep the domestic price of imported goods (relatively) low, or to let them slowly change. The price coefficient as a tool can be used for this purpose without directly violating any of the economic constraints. Thus the price coefficient is, in contrast with the rate of exchange, not objective. This is obvious if we take it into account that, though a rate of exchange can be revalued in principle with a view to realizing purposes connected with the domestic price level, such exchange rate policy is constrained by the possibility of reduction of exports, and thereby causing a fall in employment, a reduction of reserves and credit possibilities, and a slowing down of the growth rate. In adjusting the price coefficient such objective constraints need not be faced. Namely, if, for example, the price coefficient is assigned as a tool to the target connected with the import price level, so that with an unchanged level of subsidy for example the export results would worsen, this can be prevented by a differentiated amendment of the subsidies.

This latter possibility throws light upon the most important difference between the rate of exchange and the price coefficient. For the economic units the price coefficient is not such an objectively given factor which could offer firm grounds for their decisions or would force them to adjust. Therefore, its size does not express what cost level of earning (saving) a unit of foreign exchange is still acknowledged by the economy as a whole. Nor can it express, how much a unit of the foreign exchange is worth for the economy as a

\*Of course, we do not say that everybody who talks or writes about function interprets the rate of exchange in this way.

whole. The size of the price coefficient primarily expresses the function considered momentarily the most important one. Of course, not only the desirable extent of the rise of the import price level – expressed in home currency – may constitute this function. The price coefficient may be charged also with the task to render the activity of some exporting companies (half, or one-third of them) automatically profitable; the rest will be looked after by other means. The same task can be formulated in another manner. If it is desired that, for example, half of the companies "should be covered" by the price coefficient (and export efficiencies are symmetrically dispersed), the price coefficient may be expected also to express the average "production cost" of the foreign exchange. Yet what matters is not the formulation, but the function.

To the preceding an important remark must be added. To the rates of exchange – in the same way as to the price coefficients – are connected a few complementary instruments having become general internationally, such as customs duties, tax-reliefs, subsidies. These operate beside the rates of exchange, not instead of them, – as is the case with the price coefficients – which is to say that the tools complementing the rate of exchange are more or less uniform and relatively stable.

Therefore, in the case of an operative rate of exchange, the level of enterprise incomes derived from international economic relations (and their changes), that is, the difference between the costs and receipts per unit of foreign exchange of economic units (and their changes) are determined primarily by prices, the activity of the economic units, and the price of the foreign currency (or their changes). As opposed to this, with the price coefficients the decisive factor of the income structure is the size of government subsidies and taxes (and their changes) put in between costs and receipts per unit of foreign exchange.

The economic nature of the rates of exchange has been deliberately confronted with that of the price coefficient in such sharpness; we think that it would be useful for the Hungarian economy to switch over from the price coefficient to the rate of exchange. We call the economically justified "type of price coefficient" the rate of exchange. We do not feel this usage arbitrary, though the expression "rate of exchange" is generally used to indicate the rate of conversion between convertible currencies. Here the denomination "rate of exchange" is used in a somewhat wider sense: beside the preceding, it comprises the commercial rate of exchange expressing the price of foreign currencies. Their putting under the same heading expresses also that, in our opinion, the economic interdependencies affecting their level are similar.

Of what types are the conversion rates treated in the Hungarian economic literature and in discussions, and which of them can be considered a rate of exchange?

Upon the basis of their calculation three types of conversion rates may be distinguished: the coefficient of a purchasing-power-parity character (reflecting the relationship between the weighted average of the price of two countries), that based upon the costs of producing foreign exchange, and that of marginal character. The second group comprises, logically, beside the average coefficient, the below-the-average ones (for example those reflecting the foreign exchange production cost of "leading" exporting

industrial sectors), and also the above-the-average coefficients worked out upon the basis of the "production cost" of a certain group of products (for example upon basis of the average of the individual "production" indicators of those export goods whose dispersion points are placed the "most densely", or which are formed by complementing the average coefficient with a few per cent). The coefficients of the marginal type comprise those rates of conversion according to which the whole or most of the exports necessary to ensure the desirable balance of trade are profitable. Only the latter can be called a rate of exchange. The rest are price coefficients since, because of their mode of calculation, they are operational only together with the so-called rate-of-exchange-complementing tools.\*

In order to explain why it would be more advantageous for the Hungarian national economy to use a true rate of exchange, and where it would be placed in comparison with the above-mentioned rates of conversion – as regards its substance, not its actual level –, we think it will be sufficient to discuss the coefficients of the average and of the marginal type.

#### The average coefficient

The average coefficient is determined on the basis of the indicator showing the average cost for the national economy of producing a unit of foreign exchange. Since it considers the actually realized export prices as foreign prices (and not the domestic prices of foreign countries), it avoids the irrealistic assumption — in the case of comparing countries with different development levels — that export prices correspond on average to the domestic prices of the importing countries. It presents a problem, however, that the indicator leaves imports entirely out of consideration. The fact that in Hungary the weight of competitive imports from the West is small brings nearer to each other the purchasing power parity computed at wholesale prices and the "production cost" of foreign exchange,\*\* but in that case not even the former provides a basis for the determination of the rate of exchange.

It follows from the character of the average coefficient that, whenever it is applied, an extensive utilization of such rate-of-exchange-complementing tools becomes necessary,

\*In order to convey an idea of the magnitudes, we mention that in Hungary in 1970 the average coefficient was Ft 60/\$1 with which nearly 66 per cent of the exports had to be subsidized. According to the calculation published in the study of *Kravis-Kenessey-Heston-Summers* [3] the purchasing power parity of the forint to the dollar was Ft 16/\$1, with the full GDP taken into account, and the rate weighted with the products participating in foreign trade was Ft 22/\$1.

\*\*If in our imports products that are "only" more expensive on the home market but not unproducible figured with a larger weight, it would become obvious that the purchasing power parity determined upon the basis of the realizable export and import prices as well as of home prices would result *ex ante* in a higher rate of exchange than the *ex ante* average indicator of the cost of foreign exchange.

as are government refunds, tariffs (import charges of customs duty character), and regulation of the volume of imports.\*

The task of the government refund is not simply to enable a larger volume of exports through creating a higher actual "rate of exchange", but it has to ensure that all exporting companies should earn approximately the same profit, independently of the relationship between individual production costs and sales prices. As a consequence, it creates a number of coefficients of different sizes. Under such circumstances the number of the different individual coefficients depends mostly on how extensively the subsidy is applied.

Although as regards its fundamental purpose and destination the customes duties cannot be compared with the government refunds, that is to say, their existence is not justified merely by the use of the price coefficient,\*\* they act on the import side in the same manner as the refunds do on the export side. The tariffs differing by products or groups of products differentiate the rate of conversion according to the extent of the difference.

The regulation of import volumes – incapable of a realistic selection of import needs and inevitably including subjective elements – exerts an effect on the rate of conversion similar to that of customs duties. There are, however, also important differences between the two tools. For example, the customs duties leave it to the buyer to decide, whether it is worth acquiring the goods charged with the customs duty, or rather to abandon buying. Besides, regulation of the volume exerts its effect on raising and differentiating the rate of exchange only in respect of the import substituting production, insofar as it enables to organize the manufacturing of such import substituting products, which would appear unprofitable if computed at the rate of exchange.

So far such tools have been discussed which raise the comparatively low level of the average coefficient, trying in this way to bridge over the above-mentioned problem, namely, that the price coefficients based upon the foreign exchange "production" indicator leave the balance of trade aspects out of consideration. Other financial "bridges" have exactly the reverse effect. They are in no way interdependent with the type of the rate of conversion, and their application is justified by some other kind of purpose, outside the sphere of the rate of exchange. Such is for example the import price subsidy, whose role has suddenly grown in this decade.

\*The calculation of price coefficient based upon the average cost of producing foreign exchange may be called an arbitrary – though technically easy – method, following a reversed train of thought. It is, namely, practically indifferent, whether the trade policy tools and other ones affecting foreign trade are adjusted to the rate of conversion calculated in consideration of the average foreign exchange "production" indicator (which is unable to function as a rate of exchange), or first the sphere of exports and imports to be subsidized and that to be restricted are determined without any "principle", and the price coefficient is adjusted to them. To avoid misunderstandings, we emphasize that we do not consider the latter procedure as good or desirable; we simply wish to point out that it is perfectly equivalent to the former one.

\*\*In the case of competitive products tariffs are needed for the protection of the import substituting production because of the average coefficient, and with non-competitive imports their role corresponds to that of turnover tax.

Because of these tools complementing the rate of exchange, the average coefficient that is formally uniform<sup>\*</sup> – of the same size for all exported and imported goods – practically operates in a very limited scope. There are thus a relatively small number of products which can be exported or imported, under such circumstances, at an identical actual "rate of exchange", and there are even less that can be exported as well as imported at the same rate of exchange. If we examine the consequences of this, we shall be faced with a few well-known problems.

From the two aspects of the lack of uniformity we shall first survey the consequence of the case in which different rates of conversion are used in exports and in imports. In this case a certain group of products - depending on the extent of the difference - cannot be clearly judged from the aspect of comparative advantages. There exist such products whose world market price and domestic production price are identical or almost identical, so that because of the transport costs and other charges on goods participating in foreign trade it is not worth exporting or importing them even with a uniform rate of exchange. Disregarding the above-mentioned additional costs, in the case of a uniform rate of exchange, products of the above-mentioned kind can be considered as such only if their world market price and production price are by chance identical. However, the lower the export rate of exchange than the import rate of exchange, the more such products there will be. Yet in the reverse case both the imports and exports of the same products may seem to be useful.\*\* This implies practically that at the micro-level it is profitable to reexport in unchanged form a number of imported articles and to use such imports for the exported goods, which would be unprofitable in the case of a uniform rate of exchange. In the case of products in whose production cost the value added is small relative to the import content, it may easily happen that the export price does not cover even the cost of the imported raw material used.

The other aspect of uniformity is an identical rate of conversion for each product. In imports the consequence of the lack of uniformity is a distortive effect of import price on home prices, a relatively larger demand for products accounted at a lower actual rate of exchange, and hindered imports of goods accounted at a higher rate of exchange, that is, restriction and elimination of the role of import prices in orientating consumers' decision.

Different actual export price coefficients mean that the minimum requirements raised towards enterprises are different. And under such circumstances there is nothing to guarantee that the foreign exchange needed by the national economy is in fact produced in the possible most efficient way. Let us examine this question more closely through the effect of the government subsidy.

<sup>\*&</sup>quot;Uniform" does not mean that the level of the commercial rate of exchange is identical with that of the non-commercial rate of exchange.

<sup>\*\*</sup>According to a computation made at the beginning of the seventies, in case of a 15-20 per cent difference in the rate of exchange the evaluation of about half of the goods taking part in the Hungarian foreign trade would be ambiguous.[4]

On the one hand, this system of stimulation renders the ranking by efficiency of the export products on the enterprise level and on the national economic level inevitably contradictory. Numerous examples show in Hungary that the individual foreign exchange "production" indicator of the most profitably produced export article of one company is worse than that of the least profitable product of another company. In that case, however, at the macro-level it is not the best way of transforming the export structure if both companies stop exporting their least profitably manufactured products and increase the export of their most profitably produced ones, even though both would have acted reasonably and in the best possible way. On the other hand, the organs deciding on the granting of government subsidy are not in a position to estimate realistically export possibilities and the cost reduction potentials of each company. Therefore, the influencing of the export structure is transferred, to an exaggerated extent, to a decision level higher than the optimum one.

Further examples could be cited, but it should be clear already from that much that all these are irrational activities from the aspect of the economy as a whole, though they may be perfectly reasonable and profitable transactions for the economic units. And the cause of this duality is to be found in the differentiated effective rates of conversion, that is, in the lack of an objective rate of exchange.

# The coefficient functioning as a rate of exchange

The basic feature – mentioned in the preceding – of the marginal type of coefficients will be complemented hereunder with the examination of its other features, because we wish to clarify briefly and unequivocally the difference between the average price coefficient and the rate of conversion able to function in fact as a rate of exchange, we consider to be correct – and the position of the latter among the marginal type of coefficient.

The substance of its difference from the average coefficient is that it is dependent upon the foreign economic position – as well as on the economic policy instruments and purposes affecting the former and thus it is able to function in itself in a wide scope. The marginal price coefficient can, therefore, be considered as a rate of exchange, in harmony with the above interpretation. Yet by the marginal rate of conversion two different types of the exchange rate are meant. One is an equilibrium rate of exchange, while in the other interpretation the marginal coefficient is not necessarily absolutely uniform, that is tools complementing the rate of exchange – truly only as complements – may be attached to it. Yet its lack of uniformity does not arise from its nature, but from reasons outside the rate of exchange. This is the kind of marginal coefficient which we consider a rate of currency conversion able to function also as a commercial rate of exchange.

There arise immediately three questions. Which are those reasons outside the rate of exchange? What means complementing the rate of exchange are applicable, and to what extent?

It is a widespread international practice that - in order to avoid double taxation - no turnover tax has to be paid on export articles, or, certain taxes - paid in earlier phase of manufacturing - are refunded, that is to say, products sold abroad are free from part of the taxes. If the marginal coefficient is introduced in a way that producer prices continue to comprise generally applied taxes, such refunds may be granted also on Hungarian exports, since a refunding of taxes based upon an identical rate independent of the product does not infringe upon the uniformity of the rate of conversion used in exports. It is important, however, that its amount should not rise above the level of the factors modifying the import rate of exchange, but only compensate for them, and thus it should guarantee the identity of the actual rates of exchange functioning in exports and in imports.

Turning our attention now to the import side, we are of the opinion that Hungarian trade policy interests, foreign policy considerations, as well as the protection of "running-up" industrial branches still require – even though at a reduced rate – the levying of customs duties. Because of their effect disrupting the uniformity of the rate of exchange per product, tariffs ought to be pressed down to the minimum level still corresponding to the above-mentioned economic and political requirements.

The hunger of the Hungarian national economy for western imports is well known, and so is the low "upward" price elasticity of imports, which means that demand hardly reacts on the rise in import prices.

The reason is the relative backwardness of the Hungarian national economy, and its modest capacity; the economic-geographical features of the country raise in themselves considerable demand for imports. Further economic growth is inconceivable without permanent technical progress, for which it is inevitable to introduce the technologies of the most advanced industrial countries. We are forced to buy a lot of food, raw materials, semi-finished and finished goods against dollars, because they are entirely, or partly missing from Hungary or cannot be found in the required quantity or quality –, and they cannot be bought in the required quantity from socialist countries, either.

Besides, such factors are also at work which follow from the economic conditions and control systems of Hungary and the other socialist countries, and because of which Western imports are often much more advantageous than the purchase from a home company or from some socialist country. For example, capitalist firms offer services of high standards and covering a wide field (such as repairs under guarantee, supply of parts), they can undertake short terms of delivery, and they are willing to accept orders for small lots, as well as for products to satisfy special requirements, much more so than the large socialist state enterprises. These facts have led even to such cases when part of the Western imports could be in fact replaced by products of the same or even better quality manufactured at home or in another socialist country, that is, the said importhunger is sometimes further augmented by subjective opinions.\*

\*A few specific manifestations of this problem are discussed in Sándor Erdélyi's article.[5]

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It is beyond dispute that this "hunger" can also be appeased: by a higher rate of exchange. But only by such as would encourage exports to an extent beyond the enlargement possibilities of export capacities, and thus would lead to an accumulation of profits entailing an inflationary effect, and to the diminishing of commodity stocks available for home use which would also have a price raising effect.

Yet it would be wrong to consider this situation as unchangeable, and therefore look for an "antidote" exclusively in administrative state intervention, since the quantitative restriction of imports expressly counteracts the selective influence of the rate of exchange and also because it may cause standstills in production and endanger the fulfilment of export ambitions. By strengthening the general cost responsiveness the price elasticity of imports may be intensified. By improving the relationship between home production and consumption import needs might be reduced. The suppression of low efficiency exports may also be an important tool to reduce the demand for foreign products, since a considerable part of imports is made up of materials and parts necessary for exports.

The import price subsidy has been already separated above from the other financial bridges, since its application is not a consequence of the type of the price coefficient but of price policy, and its effect is just the contrary of the other ones (it lowers the level of the rate of exchange). In our opinion, this kind of dotation can and must be replaced, if found justified, by consumer price subsidy – which, as against the import price subsidy, does not appear as a distorting factor in every stage of further processing imported products – and an adequate incomes policy. Thus the use beside customs duties of another complementary tool to differentiate the rate of exchange could be avoided.

Now we have to answer only the question to what extent the tools enumerated can be utilized. This is, however, not easy. It is not possible, nor is it necessary to define a numerical level in full exactness, thus, the boundary between the price coefficient and the rate of exchange cannot be clearly drawn, either. The important thing is that the tools disturbing the uniformity of the rate of conversion should in fact play but a complementary role and should not obtain determinant importance.

# Should the price coefficient be "average" or "marginal"?

In Hungary the supporters of the average and of the marginal type of price coefficient have been carrying on their dispute — with varying intensity, but almost without a break — for about 15 years. During this time, though no satisfactory theoretical conclusion has been reached as yet, the competent authorities made a decision in favour of the average type of coefficient on two occasions: first in 1968 when the new system of economic control and management was introduced, and again in 1976 when the so-called active exchange rate policy was adopted. The question, why this has so happened, that is, why this type of price coefficient appears to many as more useful than a rate of conversion capable of functioning as a rate of exchange, is partly answered by the arguments and counter-arguments heard in the course of the dispute. We shall deal only with some of

them. The problems that have turned out to be based upon misunderstandings or have been satisfactorily clarified in the literature will not be discussed here.

The argument most often advanced is based upon the assumption that the level of marginal type coefficient is necessarily higher than that of an average type. Therefore, if the marginal type of coefficient were applied, the forint prices of import products would rise, which would raise the home price level directly, as well as indirectly, for more expensive import products would "draw upward" the prices of similar home products. The total enterprise profit coming from exports would grow, and the additional demand arising therefrom, as well as the higher forint prices of export products would also push prices upward.

Some are of the opinion that this would entail permanent inflationary effects, since more expensive imports would increase the production cost of export goods. As a consequence, the level of the rate of conversion should be raised further, which would lead to a further ruse in import prices, and the process is infinite. In fact, increased import costs do not go over to the production costs of exports in full, since the value of the foreign products used is only a portion of the value of export goods, and the rise in import prices does not raise the total home price level to the same extent. Therefore, if the export prices of the products cover the costs of the imports used, such a rate of exchange can be demonstrated to exist at which the above described process will stop – if the foreign trade structure, export and import prices remain unchanged.

It is a characteristic feature of the Hungarian price system that the social net income is realized practically only through the producer prices. Namely, while the tax content of these (taxes levied separately on production factors, production and profit) amounts to about 30–40 per cent, in the sphere of consumption the amount of price subsidies exceeds that of the turnover tax. Some of these net income items incorporated into the producer prices are superfluous (according to György *Szakolczai*'s computations over 15 per cent of them in 1971) and without any function, that is, their necessity arises from their existence. If they were not incorporated into prices, products and services bought from the state budget could be cheaper, so that a lower income taxation would be enough to maintain the same position of the budget.

By eliminating the superfluous net income items, and by incorporating most of the really justified ones as turnover tax into the consumer prices instead of into the producer prices, the producer price level could be lowered, while the income of the state thus collected would remain intact. And, if that level were lower, also the level of the marginal type of price coefficient would be much closer to that of the average one in the present price and refunding systems, and could be even identical with the latter. In this way, therefore, even the single rise in price level could be lessened.\*

\*The difference between the commercial and the non-commercial rates of exchange would not increase any further, either, that is, it would not become impossible to introduce the uniform one-level rate of exchange system – by all means necessary in the case of introducing convertibility, and perhaps really desirable from the aspect of the foreign judgement of the Hungarian monetary

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The total export profit of enterprises would be higher even in that case, since production costs would diminish. Yet with a taxation system that would leave different profits with the enterprises – for example, through progressive profit taxes, as opposed to the differentiated rates of conversion – some of the export profit could be taxed away without disrupting the uniformity of the rate of exchange, or disturbing the activity of enterprises through preventing them from foreseeing their profitability relations.

The price pushing effect cannot be entirely excluded from other sides, either. For example, if the level of tariffs remains unchanged, in consequence of a lower producer price level the difference between the import price level and the home producer price level will be growing in spite of an unchanged level of the exchange rates. Thus, import prices may stimulate the raising of domestic prices of certain home products also in that case.

The price pushing factors are, however, partially compensated because it will become possible to considerably reduce the export subsidy, financed from the budget deficit, thus also having an inflationary effect. In a longer perspective we can disregard also other factors with inflationary effects. For example the uniform rate of exchange may help to develop such an export structure, as a result of which no deterioration in the terms of trade will have to be suffered even if there is a fast rise in world market prices, and particularly not to an extent as in the past.\* If export prices grow at least at the same rate as the prices of imported goods, the same balance of payments position can be reached – assuming other factors affecting it remain unchanged – also with a lower rate of exchange allows that import products be incorporated into the Hungarian economy at lower forint prices.

All considered, the rise in the price level caused by the introduction of the marginal coefficient is, in our opinion, not such a high price to pay for the advantages of the uniform rate of exchange over the average price coefficient that it would be worth renouncing it.

\*A similar conclusion has been reached, though from a different approach, by A. Köves: "... difficulties of national economic equilibrium that were graver in 1975–76... may be at some places attributed *directly* to deteriorating terms of trade. Nevertheless, what seems to be an undeniable fact in first approximation remains but a partial truth in the course of further analysis, and might be formulated somewhat more exactly in the following way: world market changes appeared as external conditions that could not be influenced only with the given economic structure, with the given level of technological development, with the given mechanism of economic management, with the given economic policy attitude ..."[6]

conditions. To some the latter seems to be so important that they use it as an argument in favour of the average coefficient, claiming that in the case of a marginal coefficient the present dual system of the rate of exchange would be even more difficult to eliminate. Yet the difference between the price coefficient and the non-commercial rate of exchange causes us much less problems than the fact that the price coefficient is of the average type. Therefore, in our opinion, this question has but of a slight importance as yet.

Let us examine also an assumption of a theoretical nature. According to it, only the average coefficient can be reconciled with the Hungarian price system, since the price calculation of domestic products is based upon the average costs. Therefore, there is nothing to justify that the price of the foreign exchange should not be calculated on the basis of the same principle as that of all other products.

Apart from the fact that, in our opinion, this correspondence is a formal question, for no such harmful effect can be pointed out as would arise from the fact that the basic principle of the calculation of the two different prices is different, several objections may be raised. First of all, a price calculation principle which does not enable the price to cover the production cost of the goods needed by the national economy is theoretically wrong. At the same time, in Hungary prices are not really calculated on the basis of average costs, but generally in a way that an average profit is added to the actual costs. And this kind of price calculation is not identical, as regards its theoretical bases, with that of the price coefficient worked out on the basis of the average foreign exchange "production" indicator. It has to be mentioned that in certain cases, for practical considerations, expressly the marginal principle is used in price calculations, and this has been done recently in rather a wide scope, for example when the "unification" of the prices of products coming from various sources and of different production costs is effected, instead of the earlier practice of "price mixing", at the price level of the most expensive source. There is also a logical contradiction in the approach of the supporters of the average coefficient: they deem it necessary to raise the level of the import rate of exchange through financial "bridges" - first of all customs duties. This implies, however, that imports are not incorporated into the domestic price system with the average costs.

In the advanced capitalist countries the taxation of value added (VAT) is today a widespread practice. This system has allowed the accounting without cumulations of a part of the rates and taxes levied on the products, as well as their clear separation. As we have mentioned it in another context, in the case of export goods this tax (and, following from the nature of the VAT system, also a few other taxes imposed in some earlier phases) are not a burden on the selling price, or, the tax of the preceding phase is refunded. For this reason, such a view has also developed, that the marginal type of exchange rate would make no sense in Hungary, if such type is not used anywhere else, since also in the capitalist countries it is the rates of exchange and tax refunds together that form the actual rate of conversion.

Let us, however, observe two things. On the one side, exemption from, and efunding of, taxes do not change in themselves the fact that the rates of exchange of Western currencies still bring a certain profit to the marginal exporter. The difference is only that the domestic "production cost" of each export article is lower to an identical extent, that is, the scope of profitably exportable goods is relatively enlarged. On the other side, the use of other instruments complementing the rate of exchange is in fact but of a complementary nature, in international settlements the rate of exchange plays a leterminant role. Therefore, the above-cited statement is wrong: the rates of exchange of Vestern currencies are of the marginal type.

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The argumentation approaching the question from the aspect of stimulating foreign trade may be criticized from theoretical as well as from practical viewpoints. According to its opponents, the marginal coefficient brings too much profit, that is, it overstimulates exports.

It is true that the marginal coefficient secures profit also to the producer whose exports would require subsidy with the average coefficient, if that is necessary for achievement of a certain balance of trade. Yet this does not mean that the marginal coefficient allows unprofitable export, it only eliminates the contradictory situation in which even the necessary and profitable exports appear to be unprofitable for the national economy. What does the over-stimulation of exports actually mean? In general, exports can be considered over-stimulated, if the currency is so much "undervalued" that it leads to an unnecessarily favourable balance of trade position. Obviously, in the case of a marginal coefficient of a correctly chosen level this would be out of question, since it is, by definition, such that stimulates for exports considered necessary from the national economic aspect.

The other objection against the marginal coefficient is also related to the overstimulation of exports: according to it, this type of coefficient is not advisable to apply if individual "production" indicators are so widely dispersed as is the case in Hungary, because under such circumstances it might lead to additional incomes entailing harmful consequences. Those who use this argument do not remember that the above-mentioned wide dispersion is in most part exactly the consequence of the average coefficient, that is, of the financial "bridges" attached thereto, since it is among the most important purposes of the latter to level off the profitability of production for exports. In this way, however, there is nothing to stimulate for diminishing existing differences in efficiency.

Starting from the fact that the marginal coefficient brings a larger total income for exporters than the coefficient determined upon basis of the average "production costs" of foreign exchange, the supporters of the latter claim that the marginal coefficient encourages deterioration of efficiency.

If such effect is really found, then it is attributable mainly to the other elements of the economic management system. Under other conditions of interestedness, if, for example, to increase the profit year by year were not among the most important criteria of appreciating enterprise activity - it would occur only in exceptional cases that enterprises do not try to grasp the possibilities to increase their income. It is understandable, however, that the present method of appreciation deters enterprise managers not only from undertaking transitorily "bad years" with a view to better results at a later date, but also from showing an outstanding high profit at any period. From their own point of view, they act reasonably if they do not use the possibilities for increasing profit all at once, but keep some for the years ahead. It must be also pointed out that after realization of the profit coming from a change in the rate of conversion the new price of western currencies is already a given factor for all exporters, and thus, the efficiency-deteriorating effect cannot assert itself any more.

Already in discussing the latter aspects we had to transcend the sphere of money and finances, and in the following we must examine also another aspect of the interdependence among the elements of the price coefficient, the rate of exchange, and the economic environment.

The supporters of the average coefficient do not display a uniform attitude. There are some, for example, who think it useful because, in their opinion, the "financial bridges" and the administrative tools attached to it help to fulfil the task of the socialist state in economic control and management, while the uniformly effective rate of exchange is a "capitalist market category" and irreconcilable with the socialist mode of production. This attitude is a specific manifestation — in the sphere of the rate of exchange — of the outdated view condemning the categories of commodity and money, the incorrectness of which need not be, in our opinion, specifically proved.

We think it very important, however, to deal with the opinion of those who say that the average coefficient is a better regulator than a rate of exchange, not generally but in the actual situation, that is, with the present characteristics of our economy.

It is true that the economic environment at present does not allow all the advantageous effects of a marginal type of coefficient to unfold. This can happen only if progress is made in a number of other fields as well, outside the sphere of the rate of exchange. Such a progress is, for example, if – with a view to a realistic estimation of comparative advantages and to avoiding distortion by rates of exchange – producer prices will reflect the justified domestic inputs better than they do now, and get in fact into a closer relationship with foreign prices. We have already mentioned that it will be necessary to modify the incentive system of enterprises. Further, it seems necessary to increase their independence also from the side of capital, and it is expedient to allow the flow of capital among enterprises. In addition to its main advantage, which is to promote the transformation of the economic and export structure in a favourable direction, the latter would render it partly unnecessary to tax away a certain ratio of the enterprise profits grown as a consequence of the application of the marginal coefficients.

Yet we do not agree with those who say that it is only in case of progress attained in other fields, not mentioned here but waiting to be developed, that it is worth taking the risk perhaps involved by changing the type of the price coefficient. A lot can be gained also without changes in the fields outside the sphere of money and finances. a considerable progress can be made in attaining economic clearsight.

At the time when the new economic control and management system was introduced in Hungary, the standpoint of those seemed to prevail who judged the average coefficient to be more suitable only transitorily. What can be the reason for the fact that this "transitory period" has been lasting now for over ten years? It is probable that the character of the average coefficient corresponds to the actual character of the whole economic control system. This may be the unwritten argument for the average factor not formulated by many even for themselves, which stands above all the rest, and which explains, at the same time, why some of these arguments seem to be forced and factitious.

The main feature of the above-mentioned correspondence is the duality of the average coefficient, similar to that of the economic mechanism. It unites (with approximately identical weights) the elements of indirect and direct control, and the effect of the general regulator having a uniform effect is modified by a vast amount of individual interventions. That is, a "brake" is built into the "market" regulator, which is represented in the present case by the numerous tools complementing the rate of exchange. All that involves the apparent advantage that on the monetary and financial side it allows to avoid wider economic "movements" or rearrangement (bankruptcy of some enterprises, and fast development of others), and it allows also state intervention in individual cases, which is certainly the simplest form of state control and management, though by far not the most expedient one.

This recognition seems to be reflected in the new efforts aimed at transforming the system of subsidies attached to the average (or even lower) coefficient. The proposals set forth such transformation of the incentives as could bring the criteria of enterprise and macro-economic efficiency closer to one another. These extremely complicated systems, disputable from the economic aspect and technically almost unsolvable – for example the one based upon the net foreign exchange returns – try, without exception, to counterbalance in some way the disadvantageous consequences of the lack of an operative rate of exchange. It may well be, however, that such types of construction render the situation only more confused, and by no means provide a solution. The solution is, in our opinion, to introduce an operative rate of exchange.

We do not assume, however, that under its influence either the "optimum" foreign trade structure, or the "external equilibrium" would automatically be created. We can, however, trust, without exaggerated optimism, that it may help to block up a few sources of loss. Its existence makes it easier for enterprises as well as for the centre to anticipate the economic consequence of their decisions, and, by improving of the "viability" of the economy, it may promote also the structural transformation so frequently referred to.

## References

- 1. ERŐS, GY.: Az ár- és árfolyampolitika összefüggéseiről (Interdependencies of price policy and rate of exchange policy.) Pénzügyi Szemle, 1975. No. 10
- 2. BÁNFI, T.: A korlátozottan érvényesülő valuta-árfolyamok általános megközelítése (General approach to the rates of exchange under restrictions.) Pénzügyi Szemle, 1977. No. 7
- 3. KRAVIS, L. B.-KENESSEY, J.-HESTON, A.-SUMMERS, R.: A system of international comparison of gross product and purchasing power. Baltimore-London, 1975. Johns Hopkins University Press.
- 4. SZAKOLCZAI, GY.: Importilleték vagy devizaszorzómódosítás (Import duty or amendment of the foreign exchange factor.) Külgazdaság, 1972. No. 7
- 5. ERDÉLYI, S.: Külkereskedelem egy beruházó mérnök szemével (Foreign trade with the eyes of an investment engineer.) Valóság, 1977. No. 1
- 6. KÖVES, A.: Integration into world economy and direction of economic development in Hungary. Acta Oeconomica, 1978. Vol. 20, Nos 1–2, p. 109

# ВАЛЮТНЫЙ КУРС И ВАЛЮТНЫЙ КОЭФФИЦИЕНТ

#### И. ЛАКОШ – Г. ОБЛАТ

В статье различаются два типа коэффициентов пересчета валют—валютный коэффициент и валютный курс. Хотя между ними имеется сходство по отдельным формальным признакам, их экономическая природа по существу различна. Если валютный курс — в определенной степени категория объективная, и возможные решения официальных органов относительно его величины ограничиваются довольно узкими рамками, то для валютного коэффициента характерно как раз обратное.

Вотличие от курсов конвертируемых валют, авторы статьи считают применяемый в Венгрии валютный курс по коммерческим расчетам валютным коэффициентом, ведь он применяется лишь с широким использованием т. н. надбавок к валютному курсу. Из-за этих финансовых «мостов» валютный коэффициент является единым лишь формально, а на практике функционирует множество различных по величине коэффициентов пересчета. Из-за отсуствия унификации нерациональная с точки зрения народного хозяйства в целом деятельность может быть вполне рациональной и рентабельной для отдельных хозяйственных единиц.

Вместе с тем т. н. предельный коэффициент, показывающий рентабельность экспорта в целом или его подавляющей части, необходимой для достижения желаемого сальдо торгового баланса, мог бы функционировать и воздействовать как валютный курс и, таким образом, служить ликвидации отдельных источников убытков и способствовать ясности ориентации в хозяйственной сфере.

Причину того, что несмотря на очевидные преимущества в Венгрии многие чуждаются применения предельных коэффициентов, авторы раскрывают при анализе дискуссии о средних и предельных коэффициентах пересчета, которая велась на протяжении длительного периода. Они, в частности, не согласны со взглядами, которые приписывают предельному коэффициенту постоянные инфляционные эффекты и считают его несовместимым с венгерской системой цен и, вообще, с нынешней внутренней экономической средой. Основную причину приверженности к коэффициенту среднего типа они видят в том, что эти коэффициенты пересчета валют соединяют в себе элементы прямого и косвенного регулирования, а это сопровождается тем кажущимся преимуществом, что, с одной стороны, помогает избежать значительных экономических преобразований, а с другой стороны, — позволяет применять более простую, но далеко не наиболее целесообразную форму государственного управления и контроля, а именно — индивидуального государственного вмешательства.



Acta Oeconomica Vol. 23 (1-2), pp. 59-73 (1979)

# Á, MARTON

# CHANGES IN HUNGARIAN FOREIGN TRADE PRICES SINCE THE 1920s

For half a century before the 1973 world market price explosion, except for relative short and ephemeral periods, prices of industrial finished products were more favourable than those of materials and agricultural products. The terms of trade of industrially advanced countries showed a steadily rising tendency. Because of her given economic structure Hungary's terms of trade developed less advantageously than those of the industrially advanced countries, but more advantageously than those of raw material producers. The trend of improvement was cut short for some time by the economic crisis of the thirties and then by the market movements affecting certain products in the fifties. Since 1973 the state of affairs has become substantially different.

The changes in world economy during the last few years, the oil crisis and the so-called price explosion, put an end to the post-war decades of dynamic economic growth and relatively steady world market price movements. The slowly "creeping" inflation characteristic of previous years speeded up and especially primary energy and certain raw materials became much more expensive. By implication, the relative prices of various commodity categories and, depending on the commodity pattern of foreign trade, the terms of trade of different countries and groups of countries changed too.

It will be instructive to learn the characteristic features of price movements and to analyse them comparatively and historically because major price changes did happen also in earlier years. In this study it is attempted to give a brief review of the changes in the terms of trade since World War I. This is particularly topical now for Hungarian economists because the abrupt and significant changes of the world market influence not only the foreign trade relations and equilibrium position of this country but also the consumer prices, and directly affect the household budgets, their expenditure and pattern of consumption. This must be a reason for the growing economic concern of the people; price changes, evaluations of processes taking place in the world economy and their predictable consequences have become subjects of everyday conversation.

One could venture the statement that Hungary has now come into a situation similar to what England experienced in the early 1950s, when, there for the first time, interest was focused on the terms of foreign trade. This is the reason why Charles P. *Kindleberger's* [1] writing (in the introduction to his famous treatise) now holds for the conditions of Hungary. It reads: "The terms of trade, a notion developed in the activities of professional economists, has proliferated so widely that it is becoming quite casual in everyday conservations. This notion in which only farmers used to be interested at the

beginning of this century because of the differently changing prices of agricultural and industrial products has became the centre of interest of the European countries after World War II although it is not paid so much attention in the USA because of its relatively low weight." Then he goes on to say (not verbatim) the following: the world-wide attention paid to the terms of trade can be explained, on the one hand, by their very powerful influence upon the balance of payments and on the formation of the national income in the different countries and especially where the proportion of foreign trade is high relative to gross output. On the other hand it is also worth noting that people in different countries pay increasing attention to differences in real income among the countries and suppose that the terms of trade are among the factors determining those differences. The relative disinterest of the United States may be attributed in part to the insignificant role of her foreign trade and in part to her having the world's highest per capita income. But for small countries the shaping of the terms of trade is very important and, at least it is so believed, it also explains their low standard of living to some extent.

In the following we shall restrict ourselves to reviewing the changes in international and Hungarian foreign trade prices and to presenting some of the particulars of these changes. In the given scope it is not possible to treat economic growth, international trade, living conditions and consumption, that is, a number of important issues developing in interaction with prices: certain processes determine the price movements and the latter in turn affect the development of welfare in countries, promoting it or setting it brutally back. We are now witnessing such kind of processes and even though circumstances and the economic and, above all, the political conditions were different, the same kind of symptoms were encountered in the past too, during the history of this century.

# Trends in world market price changes

According to UN data [2] secular inflation has been characteristic of the price trend of 20th-century international trade from the very beginning and this was only interrupted for a few years by the economic crisis of 1929–31. From 1900 up to 1929 the price movements definitely showed an upward trend, then a strong recession followed, but soon, already as from 1933, prices started rising again. From 1950 to 1965 a quiet period was experienced which could be regarded almost as a stable one, but on a much higher level, more than two times of that of the beginning of the century.

# Price changes in the interwar period

After World War I, in the first half of the twenties, grave difficulties and a high rate of inflation were characteristic of the economies of most countries. A definite stabilization process could be observed in the world market from the middle of that decade. In 1926 prices became slightly lower, rising again during the boom of 1927–28. But this did

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Year	Canada	United States	Peru	India	Union of South Africa	Spain
1913	100	100	100		100	100
1914	102	98	104	100	97	101
1915	110	100	120	112	107	119
1916	132	123	146	128	123	141
1917	179	168	176	145	141	166
1918	199	188	212	178	153	207
1919	209	199	220	196	165	204
1920	244	221	239	201	223	221
1921	172	140	205	178	160	190
1922	152	139	190	176	128	176
1923	153	144	189	172	127	172
1924	155	141	192	173	129	183
1925	160	148	202	159	128	188
1926	156	143	203	148	123	181
1927	153	137	203	167	124	172
1928	151	140	192	163	120	167
1929	149	128	186	159	116	171
1930	136	124	178	131	103	172

# Wholesale price indexes for some countries, 1913-1930(1913 = 100)

Source: Statistical Yearbook of the League of Nations 1930/31. Geneva, pp. 270-271

not last long as the big turn came in autumn 1929 and the world was shaken by the collapse of New York stock exchange. The aftermath of this disaster unfolded during the following two years. Both production and foreign trade fell back. Raw material and agricultural crop prices were sharply falling. The prices of manufactures decreased less drastically and so the "price scissor" opened wider and wider apart from the beginning of that decade. The countries importing mainly raw materials and exporting mainly finished products could reckon with an active balance of trade.

There was some stabilization in 1933 and 1934, but a smaller boom could be observed only in 1936–1939. However, the development of international trade was retarded by tariffs and other protectionistic measures, and a new significant change occurred after 1939: World War II broke out and determined the development of prices and of international trade for a long time to come.

The wholesale prices\* of the different countries were naturally strongly determined by the changes in the purchasing power of money and by the overall extent of inflation.

\*Foreign trade price indexes were hardly published at all between the two wars. World market price indexes were computed only as from the thirties. Since the changes in wholesale prices followed the world market movements closely, these are also suited for showing the price movements of international trade.

#### Table 2

Year	Denmark	United Kingdom	Hungary	Norway	Spain	Switzer- land	Moody*
1929	100	100	100	100	100	100	226
1930	86	88	87	92	100	90	175
1931	76	77	82	82	101	78	122
1932	78	75	82	82	99	68	90
1933	83	75	71	8,2	95	65	113
1934	91	77	71	84	97	64	142
1935	93	78	78	86	98	64	161
1936	97	83	80	90	100	68	177
1937	110	95	86	105	112	79	194
1938	104	89	87	103	126	76	143
1939	109	90	86	105	144	79	150
1940	159	120	100	137	172	101	160
1941	188	134	123	168	204	130	198
1942	197	140	150	178	224	148	231

Wholesale price indexes for some countries, 1929-42

\*Raw material price index: date of reference December 31, 1931. (United States). *Source:* Statistical Yearbook of the League of Nations 1941/42. Geneva, pp. 194–195

From 1913 to 1930 in countries where the value of money was relatively constant, prices were the highest directly after the war: the price level was more than the double of that in 1913, then a slow decrease followed and by the end of the twenties the average price level was hardly more than 100 in some countries while in some others it was by 70 or 80 percent higher than the 1913 price level. (See Table 1.) In the countries affected by the war the rate of inflation was several hundred per cent.

Decreasing prices were general after 1929. (See Table 2.) The lowest point with price indexes of 70-80 per cent was in the mid-thirties. Prices came up to the prewar level by 1939-1940, and then, in the years of World War II, they were rocketing. (In the thirties there were marked changes in the grouping of statistical data, the base of index computations, the method of computation, and the sphere of countries for which data are available.)

According to the calculations of Ch. P. Kindleberger [3] the export unit value indexes of the European countries relative to 1913 amounted to 135 per cent in 1938 and to 130 per cent in 1938 while these values for imports were only 132 and 96 per cent, resp., because of the heavier weight of agricultural products and basic materials. I. e., the terms of trade relative to 1913 were up from 102 per cent in 1928 to 135 per cent by 1938.

## World market price movements after World War II

Shortage of food and raw materials was the main feature of the world market for one or two years after the war. But production quickly increased and by 1948–49 supply was satisfactory on the market of many products, raw materials and foodstuffs. Prices became lower.

Demand for raw materials strongly increased in the second half of the 1950s because of forced stockpiling, speculation and armaments following the outbreak of the Korean war. Prices soared. War preparation did not have much influence on the prices of foodstuffs. The so-called Korean boom raised the 1951 average of the raw material price indexes to the highest value, but prices began to drop already in the first half of that year when it became clear that the war would not escalate.

One of the most comprehensive processes of the commodity market in the fifties and sixties was the expansion and deepening of the international division of labour, especially in the mutual relations between the economically advanced countries. Technological development brought about a decrease in per unit material consumption. Therefore, owing to the more and more abundant supply of natural raw materials and the sharpening competition of the supply of man-made materials the market and price terms were shaping relatively advantageously only for those raw materials for which the raising of production was impeded by special factors or which were not yet challenged by a synthetic product of adequate technical standard (leather, wood, cellulose).

During the said two decades the price level of industrial raw materials was on the whole decreasing – except for some temporary fluctuations – along with the growth of the volume of exports. The market of agricultural products was also rather depressed. The price level of finished products, on the other hand, showed an upward tendency according to UN data.

These decades, too, were characterized by deteriorating world market prices of raw materials and agrarian products relative to industrial ones. This entailed a deterioration in the terms of trade of the developing countries while that of the advanced capitalist countries improved by over 10 per cent.

The uneven development of different countries and the durably one-sided changes in the terms of trade resulted by the early 1970s in certain difficulties in the relations between mainly the developing and the developed capitalist countries. The monetary system formed at the end of the war became dissolved, it frequently happened that currencies were devalued or revalued and the relative exchange rates of the various currencies went through significant changes. The "overheated" economies of the advanced capitalist countries and their growing consumption generated strains in the raw material markets.

The world market price explosion of the 1970s was ignited by the rise in crude oil price from 3 or 4 dollars a barrel to over 11 dollars in 1973. After this a spectacular and fast increase of prices of other basic raw materials was unleashed. But the causes were not of the same kind. The rise in crude oil prices affected the price levels of all petrol-based

materials (fertilizers, synthetic materials), of other primary energy (coal, natural gas, heating oil, etc.) as well as of the energy produced (e.g. electric power). At the same time in 1973–74 many important products of agricultural origin (fish-meal, protein fodder, cocoa, wheat, sugar) also became more expensive because of unfavourable production conditions. A lively speculation also appeared: because of monetary uncertainties part of the capitals were invested into raw materials in the hope for higher profits.

Reviewing the price movements of the seventies it can be clearly seen by now that these changes cannot be simplified to the fact that materials have become more expensive relative to finished products. Rather complicated and diversified changes took place also with respect to materials: relative prices changed considerably *within* the different categories.

According to the raw material price indexes published by the UN [4], if the devaluation of the dollar is eliminated, the average price level was the highest in 1974. In 1975 prices decreased and, from 1976 on, a slow increase can be observed again.

The changes in prices of material and food exports in the seventies can be described as follows:

- there are materials whose prices kept steadily increasing, such as wood, cellulose, olive oil, leather, tin, bauxite; but the rise of these prices was much below that of crude oil;

- prices of others, such as cereals, sugar, some vegetable oils and oil-seeds and zinc, were rising at a high rate till 1975 but showed a downward trend thereafter;

- to the third category belong some agricultural products, e. g. cocoa, animal and plant fodders: their price had not changed much in the beginning but attained their highest point during the last 2 or 3 years;

- finally there are many products with depressed prices all the time or even decreasing in some cases, such as meat, some vegetable oils, milk, dairy products, wine, iron, copper, and some other nonferrous metals.

If crude oil is not considered\* then during the second half of 1978 the average export prices of various basic materials were 2.5 times higher in terms of dollars than the 1970 prices. During the same period the increase in the export prices of industrial finished products from the advanced capitalist countries only missed this value by a few points: it amounted to 230 per cent. This difference was much bigger in 1975 because the price index was then 215 per cent for raw materials and only 182 per cent for finished products. The gap between basic materials and finished products narrowed from 85 per cent to 93 per cent, i. e., the terms of trade between raw materials and finished products showed pronounced improvement.

The rather widely quoted statement that the deterioration in Hungary's terms of trade and of countries with similar commodity pattern of trade was determined by the change in the relative prices between raw materials and finished products ought to be reconsidered and properly interpreted in the light of the aforesaid. The development of

\*Crude oil price (in dollars) increased to almost 8-fold between 1970 and 1978.

price indexes is determined by the given commodity pattern of turnover, also with respect to materials and intermediaries: in the background of the significant deterioration of the Hungarian terms of trade we find the disadvantageous market positions of almost all of the main commodity groups. The terms of trade in materials, machines and foodstuffs worsened.

According to the data quoted by Ch. P. Kindleberger and for the period after 1952 according to UN data [5] the following overall outline can be given of the price changes in the last nearly six decades, not including the fluctuations of the war years and of extreme boom:\*

Table 3

Year	Import price index		Export p	Tarma of	
	year in brackets = 100	1913 = 100	year in brackets = 100	1913 = 100	trade (1913 = 100)
1928 (1913)	132	132	135	135	102
1938 (1928)	73	96	96	130	135
1952 (1938)	250	240	218	283	118
1970 (1950)	96	231	198	. 306	132
1978* (1970)	255	590	240	735	125

# Foreign trade price indexes and terms of trade of European countries

\*Estimated according to data of quarters 1 to 3.

With all the uncertainties of such computations, the data of Table 3 clearly and unmistakeably show the gist of the processes that took place: the alternation of relative stability and of soaring prices, and the various lengths of such periods. And the cardinal feature of the changes in the terms of trade is that for the European countries it was actually the most advantageous in 1938 (in fact, after the eruption of the world economic crisis in the thirties). Then there was a deterioration after World War II, and the slow

\*If long periods of several decades are reviewed, the price indexes should be treated with reservation irrespectively of methodological problems, because the commodity pattern is strongly changing. Thus, the price indexes express but some hypothetical price movement or tendency, computed by chaining price indexes computed for product's considered as comparable on the basis of their relative use value for relatively short periods. Let us remember, e. g. that most of the industrial articles of our age did not even exist in 1913. This remark is not meant to contest the usefulness of the comparison, but I find it necessary to make clear the interpretation of price indexes covering longer periods and to reveal all the problems encountered in cases of such comparisons because of technical progress.

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improvement in the 1950s and 1960s was followed by a new major deterioration in the 1970s.

It is a remarkable fact that the peaks of 1938 and 1970 as well as the troughs of 1952 and 1973 were of about the same extent. (According to other data, the terms of trade were somewhat better in the years after World War I. However, as already mentioned, in the 1930s the prices of raw materials and foodstuffs decreased much more than those of industrial products and this improved the position of the industrial countries.)

In accordance with the aforesaid, since the big drop in the early 1930s, a continuation of the previous tendency: a steady rise has been characteristic of the trend of the average price level, even if during the 1950s and 1960s some products happened to become cheaper. If all the products, i. e., both imports and exports are considered, then the average price level has been rising. With respect to their tendency maintained since the mid-thirties also the well-known world market price indexes as Moody and Reuter show rising prices.

Since the 1929–1933 economic world crisis the capitalist world economy went through its gravest crisis in 1974-75. In both cases it was characteristic that the prices changed greatly but in substantially different ways. The 1929 crisis was that of overproduction and was accompanied by significant price decreases. The 1974-75 crisis was one of "overconsumption" and resulted in price increases. In the first case the terms of trade improved, while in the second one they deteriorated for the advanced industrial countries. The changes in relative prices were also different. E. g. the agriculturalindustrial price scissors were restored and to some extent even reversed by the outbreak of World War II. But as far as the "energy crisis" of the 1970s is concerned, it will not be easy to find the way out, because a solution can be hoped only through profound technological changes, new procedures and new sources of energy. Because of wasteful consumption shortage might soon emerge in some foodstuffs, agricultural and industrial raw materials as well. Environmental pollution is the source of ever growing problems. It follows from the level of economic development at present that further grave problems will eventually have to be anticipated, with implications predictably asserting themselves also in prices and their impacts will be detrimental for Hungary.

## Price changes in Hungary

An extremely unfavourable economic situation and very high inflationary rate were characteristic of the first half of the 1920s, the first years after World War I. In 1925–1926 when inflation peaked, prices in terms of "crown" notes were about two hundred times higher than the pre-war prices. Consolidation came after the stabilization in 1927 and the introduction of the new currency "pengő".

The extremely low agricultural prices relative to industrial product prices, i. e., the excessive agrarian price scissors were characteristic of Hungary all through the period
#### **Á. MARTON: CHANGES IN FOREIGN TRADE PRICES**

Table 4

Year		Agricultural products	Fuels	Industrial <sup>4</sup> products	
	1920	66	104	128	
	1926	113	131	127	
	1927	141	159	147	
	1928	133	154	156	
	1929	112	154	153	
	1930	95	147	147	
	1931	91	140	135	
	1932	78	134	130	
	1933	58	125	120	
	1934	73	124	119	
	1938	90	142	155	
	1940	121	158	170	
	1942	188	204	272	
	1944	341	402	518	

Trend of relative prices in Hungary\* 1913 = 100

\*Before 1927 gold crown, 1927 pengő prices

Source: HAJPÁL GY.: Áralakulás a két világháború között. Mezőgazdasági termékek ára. (Price trends between the two wars. Prices of agricultural products.) Budapest, 1973. KSH Könyvtár- és Dokumentációs Szolgálat. p. 51

between the two wars. This had several reasons, the most essential one being perhaps that after the war restrictions had been lifted, the industry with its more powerful representation could more efficiently strengthen its positions than the disorganized agriculture. The 1929–1933 crisis obviously had a role too, it involved an overall decrease of prices, but reduced most of all the prices of agricultural, and within it, of plant products. (In 1933 relative to 1928, the price index of plant products was 32 per cent and of animal products 56 per cent). Neither the boom in the thirties nor even the years of World War II could restore these price proportions. Though there was some improvement in the relative prices of agricultural and industrial products, they were worse even in 1944 than in 1927-28. This is shown in Table 4.

There are no data for the first half of the 1920s which would be suitable for an analysis of the trend in foreign prices. Considering, however, the relatively advantageous market position of agricultural products, it is quite likely that the proportion between the export and import price indexes was good and the terms of trade were slightly improving.

The development of import and export prices can be surveyed according to value data on foreign trade and the volume computation of the Hungarian Institute for Economic Research.

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# **Á. MARTON: CHANGES IN FOREIGN TRADE PRICES**

#### Table 5

## Foreign trade price indexes and terms of trade of Hungary (Average of the years 1925-1927 = 100)

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Year	Import	Export	Index
1928	105	103	98
1929	103	95	92
1930	95	86	90
1931	85	72	85
1932	71	60	85
1933	60	48	81
1934	54	51	94
1935	56	56	100
1936	53	51	96
1937	60	55	93
1938	58	57	98
1939	58	56	97
1940	69	72	106
1041	83	121	148
1942	93	156	171
1943	105	162	157
1944*	117	197	171

\*According to January to July data

Source: A Magyar Gazdaságkutató Intézet gazdasá gi helyzetjelentése (Economic report of the Hungarian Institute for Economic Research) No. 46. Budapest, 1940. p. 109 – NAGY ANDRÁS: Magyarország külkereskedelme a II. világháborúban (Foreign trade of Hungary during World War II). Budapest, 1961. Közgazdasági és Jogi Könyvkiadó. p. 179

At the time of the outbreak of World War II, the Hungarian foreign trade price indexes were still well below the pre-crisis level (by about 40 per cent) and the export price level was somewhat lower than the import price level. World market prices fell so drastically, traditional trade relations were so disturbed and the volume of international trade was set back so much by the overproduction crisis of 1929–1933 that the average price level of the Hungarian foreign trade attained the pre-crisis level only in the first years of the war. Export prices were greatly increased by the special conditions of war, the enhanced demand for raw materials and especially for foodstuffs and thus the terms of trade were rapidly improving as from 1940.

The improvement in the terms of trade during the war practically did not affect the economic situation of the country, because after the war only a country in ruins was left, in which reconstruction had to be started, international economic relations had to be

reestablished and readjusted in accordance with the new situation, by turning now to the neighbouring countries and especially to the Soviet Union.

After World War II in the years from 1945 to 1949 world market prices were high. Some decrease was felt only at the end of that decade. According to the rather unreliable data available for that period, the increase of import prices amounted to about 40 per cent and that of export prices to nearly 60 per cent. During that period though the volume of Hungary's foreign trade was dynamically growing, it was still not appreciable.

According to the above outlined data Hungary's terms of trade must have slightly improved in the years after World War I then, from the second half of the twenties, there was a deterioration under the influence of the world economic crisis and the level of ten years before was approached again only in the second half of the thirties. (As could be seen above, during this period the terms of trade became considerably better for the advanced industrial European countries.) The improvement of the terms of trade stated for the period 1938 to 1948 cannot be regarded as part of a continuous and coherent time series because of the pattern of turnover and the aforesaid special circumstances of the war. The pre-war and post-war data could be linked only if the commodity turnovers of the thirties and the late fourties could be made comparable on the basis of the given commodity patterns. But there is no way to do that any more now. It is indicated by the available international data that absolutely nothing supports any appreciable improvement in the terms of trade - assuming a balanced foreign trade turnover of normal size and under normal conditions as, according to the computations of Kindleberger, in this period (1938 to 1952) the terms of trade of the European countries deteriorated.

The impact of the world market price changes asserted itself in the last three decades in a direct way in the Hungarian trade with non-socialist countries. In our trade with the socialist countries, on the other hand, according to the specific pricing principle, prices normally do not immediately follow the changes in world market prices, though on the longer run the durable price trends are felt. For this reason the long-term tendencies of price trends in these two major markets must be treated separately.

The prices of imports from socialist countries increased in 1951-1952 and in 1956, mostly because of the changes in raw material prices, then fell in 1958 and in 1966-67. The changes that occurred during the last 20 years essentially cancelled each other out and so the price level in 1969-70 was on the whole equivalent to that in the early fifties.

On the other hand, from the beginning of the fifties export prices showed a slow downward trend with short interruptions. In the terms of trade there was a slight increase after the downtrend of the 1950s and the – otherwise not too low – trough of 1960. (See Table 6.)

Prices in the trade settled in roubles increased only slightly in the years 1971-72 but the rise in import prices was palpably higher than in export prices. In the framework

#### Table 6

Denomination	1950	1955	1960	1965	1970	1975	1978
Imports	97	106	106	105	100	132	140
Exports	110	109	103	104	100	117	116
Terms of trade	113	103	97	99	100	88	82

Price changes in Hungary's foreign trade with socialist countries<sup>a</sup> (1970 = 100)

<sup>a</sup>From 1970: price indexes of the trade settled in roubles.

of the price adjustments implemented over two years the terms of trade decreased by 4 per cent. In the course of price adjustments carried out in 1975–78 following the world market price increases import prices increased much faster than export prices,\* and this brought about significant deterioration in the terms of trade.

The prices of Hungarian imports from non-socialist countries decreased in 1950 against the preceding year and then, owing to the world market situation emerging as a consequence of the Korean war, increased by more than 40 per cent in 1951. Then an abrupt drop followed and by 1953 imports could be purchased virtually on the 1950 price level. There were only minor price fluctuations till 1957 and then, as a result of the Suez war, a nearly 5 per cent increase was recorded. After 1958 the downward and upward tendencies alternated in 3 or 4-year cycles in correlation with world market price changes. The price level of 1970 was near to the relatively high 1950 level.

The approximately 20 per cent increase in export prices in 1951 was much below the said change in import prices, whereas the price drop of 1952-53 was appreciable and, consequently, in 1953-54 the price level was already 10 per cent lower than in 1950. Export prices kept slowly decreasing at a rate amounting to over 10 per cent by the early sixties. Although in 1963-65 the price level was slightly higher than in the years before, this process did not prove to be lasting and new decreases took place until 1968. In 1969-70 also export prices increased markedly and were higher than the level of any year in the 1960s.

As a consequence, the terms of trade suffered a considerable deterioration of nearly 20 per cent and then, following the fluctuations in import and export prices, there was

\*The Hungarian foreign trade price indexes were computed in terms of foreign exchange forints – meaning the rate of exchange based on the gold parity of the forint – up to 1975 and in forints, converted at the commercial rate of exchange, as from January 1, 1976. Therefore, because of continuous corrections in the rates of exchange, these price indexes do not indicate the changes in foreign nominal prices. They indicate slight price rises and sometimes even decreases in the trade with the rouble area and especially in that with the dollar area although the trend of nominal prices was definitely rising.

#### **Á. MARTON: CHANGES IN FOREIGN TRADE PRICES**

#### Table 7

Price changes in Hungary's foreign	trade with non-socialist countries <sup>a</sup>
(Index: year	1970 = 100)

Denomination	1950	1952	1955	1960	1965	1970	1975	1978
Import	104	122	108	104	97	100	179	160
Export	116	118	100	89	92	100	132	129
Index	111	97	93	86	94	100	78	81

<sup>a</sup>From 1970 price indexes of the trade transacted in currencies other than the rouble

another improvement till 1953-54. During the subsequent years up to 1960 a decrease and then in the sixties a slow increase could be observed.

In the Hungarian foreign trade settled in Western currencies the world market price rises of the seventies asserted themselves immediately. In 1973 and in 1974 the price level rose by 15 to 40 per cent. This tendency came to a halt in 1975\*, moreover, a smaller price decrease could be observed and continued in 1976. In 1977–1978 new increases were recorded which derived mainly from the rising prices of some agricultural products imported, i. e., foodstuffs.

The improvement in the terms of trade which began in 1960 continued until 1972. In 1972 the index was by half a per cent better than in 1970 and by 17 per cent better than in 1960. However, in 1973 a deterioration began and in three years it amounted to 23 per cent: by 1975 the lowest point of the 1970s was recorded. Since then there has been some progress. (The indicator for 1978 was 94 per cent of the 1960 value.)

From a comparison of the data in the last two tables, i. e., of the nearly 30 years long price trends of Hungary's foreign trade with the socialist and the non-socialist countries, it can be established that in the latter case the amplitudo of price fluctuations was wider but the trend of the terms of trade nevertheless followed the same tendency. The only difference was that, with respect to the socialist countries, the terms of trade remained practically unchanged between 1955 and 1970 while with respect to the non-socialist countries a minimum only slightly more favourable than the current conditions developed in 1960 without the world market then showing changes of a magnitude near to the current ones.

Thus, with respect to the non-socialist countries there were two minimums of about the same magnitude during the last thirty years. But these two periods of deteriorating terms of trade should not be assessed in the same way. The deterioration in the terms of trade around 1960 was the outcome of the price rises of imported raw materials and of

\*As has been mentioned, the price indexes measure the changes in terms of forints converted at the commercial rate of exchange and thus the repeated revaluations had a moderating effect on the extent of price rises.

#### **Å. MARTON: CHANGES IN FOREIGN TRADE PRICES**

the falling price of exported foodstuffs but the price movements were at that time not consequences of profound structural changes as were those of the 1970s. Therefore, the impacts of the short-lived transient factors ceased and the terms of trade began to improve. The balance of trade of Hungary was not marred significantly. But the deepreaching crisis of the capitalist world economy lies in the background of the deteriorating terms of trade of the recent years. A significant and lasting readjustment of relative prices was to be reckoned with and the terms of trade cannot be expected to improve shortly. Hungary's foreign trade position is made more difficult by more and more fierce competition, by an increasing number of discriminatory measures, and - in general - by growing marketing difficulties.

Comparison of the interwar period with that after World War II (Tables 5 and 7) gives a clear picture about the impacts of the capitalist world economic fluctuations on Hungary's foreign trade position with respect to price terms. The course of the trend in the terms of trade was virtually the same between 1925 and 1940 as between 1952 and 1970. the extreme poles are in fact the same, with a considerable minimum of approximatively the same magnitude in the middle. In the seventies a new and lowest-ever minimum emerged in a very short time with respect to the terms of trade.

From the review of the development tendencies of more than half a century it appears that in Hungary's terms of trade, changing in the frameworks of secular inflation, there were three minimum points of similar order of magnitude. But essential differences must be noted: the first one happened in the 1930s along with price decreases, the second one in the early 1960s along with actually stagnating, or very slightly rising prices, while the third one in the middle of the 1970s with soaring prices. This factor – which is characteristic of many other countries as well – will certainly have its influence upon the development of the entire world economy.

In conclusion it is very tempting to construct a long-term time series based on the "advantageous" terms of trade of the years 1938–1948 and to state that the Hungarian terms of trade are still a great deal more favourable now relative to the minimum of the 1930s. But, firstly, it has been already noted that such comparison is not feasible because of the contentual obstacles of methodology and data. Secondly, the fundamental structural changes in the social and economic system would not allow to derive any meaningful conclusions from such a comparison anyway.

# References

- 2. Value, unit value and quantum of world exports of manufactures compared with other goods. New York, 1969. UN Statistical Yearbook.
- 3. KINDLEBERGER, Ch. P.: op. cit. pp. 49-50
- 4. UN Monthly Bulletin of Statistics. April, 1979. Table 59
- 5. Ibid. Special Table B.

<sup>1.</sup> KINDLEBERGER, Ch. P.: The terms of trade. Cambridge, Mass., 1956. The M. I. T. Press.

# **Á. MARTON: CHANGES IN FOREIGN TRADE PRICES**

#### ИЗМЕНЕНИЯ ВНЕШНЕТОРГОВЫХ ЦЕН С 1920 ГОДА

## A. MAPTOH

После первой мировой войны движение цен на мировом рынке характеризовалось медленным повышением, сопровождавшимся определенными колебаниями, а с конца 20-х годов, во время мирового экономического кризиса, цены значительно понизились. Лишь к концу 30-х годов средний уровень цен вновь достиг докризисного уровня. Особенно неблагоприятными были в те годы цены на сельскохозяйственную продукцию. Те страны, которые импортировали сырье и сельскохозяйственные продукты и экспортировали готовые изделия, как правило, находились в благоприятном положении. Начало второй мировой войны, естественно, привело к значительному повышению цен, а также к изменению ножниц цен между сырьевыми материалами и готовыми изделиями. После второй мировой войны в начале 50-х годов имело место значительное, но весьма кратковременное повышение цен, прежде всего на сырье. После этого вплоть до 1973 г. для капиталистических рынков были характерны относительно низии цены с сельскохозяйственной продукцией и прочим сырьем. С 1973 г. в результате взрыва цен на мировом рынке энергоносители и многие виды сырья и сельскохозяйственных продукцов значительно вздорожали.

В Венгрии состояние цен в первой половине 20-х годов определялось чрезвычайно неблагоприятным экономическим положением и весьма сильной инфляцией. В 1925 – 26 гг., когда инфляция достигла наивысшей точки, цены в бумажных кронах были почти в двести раз выше довоенных. Проводившаяся после 1927 г. политика стабилизации и введение пенгё консолидировали положение.

Для межвоенного периода в целом для Венгрии характерны были чрезвычайно низкие цены на сельскохозяйственную продукцию по сравнению с промышленными изделиями, весьма значительные аграрные ножницы.

После 1925 г. внешнеторговые пропорции обмена — в связи с неблагоприятным уровнем цен на сельскохозяйственную продукцию — вплоть до 1933 г. имели тенденцию к значительному снижению, а затем — к медленному повышению. А в годы мировой войны произошли значительные изменения.

В 1950-е году пропорции обмена — вследствие большего снижения экспортных цен, чем импортных цен — медленно, но постоянно ухудшались. В 1960 г. этот процесс достиг низшей точки. Затем эта тенденция изменилась в противоположном направлении и до начала 1970-х годов наблюдалось улучшение. В последние же несколько лет динамика цен характеризовалась значительными ростом и 20-процентным ухудшением пропорций обмена для Венгрии. Заслуживает внимания, что как в отношении социалистических, так и капиталистических стран основные тенденции движения цен совпадают. Разница состоит только в том, что в первом случае «низшая точка» 1960 г. составляла всего 3%, а пропорции обмена с несоциалистическими странами ухудшились в то время на 14%.

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# B. KÁDÁR

# STRUCTURAL CHANGES IN THE INTERNATIONAL CAPITAL EXPORTS

International capital flows are affected by the accelerating structural transformation of world economy as to its pattern by sectors and countries, its motives and functions. The role of capital export is of increasing importance in spreading up-to-date technological and organizational forms, in deepening the international industrial division of labour and world economic interdependence, as well as in global strategies.

# The international frameworks

The fundamental historical processes of our age have brought about significant changes also in the international capital relationships. These changes are characterized by an expanding volume of international capital exports and by changes in the forms, functions, resources and trends of capital relationships. International capital flows had been greatly confined over an about 20-year period by protectionism after the 1929–1933 world crisis, followed by war preparations and World War II. The volume of foreign capital investments shrank also in the physical sense owing to the changes in the East European countries and the dissolution of the colonial system.

Within the context of the international as well as domestic and political changes in the leading capitalist countries the international flow of capital somewhat revived after World War II. It was an objective of the US post-war political strategy to consolidate gradually the shattered capitalist world system. Accordingly, round three-quarter of the value of US credits, aids and direct long-term investments between 1946 and 1955 were directed to Western Europe and only 10 per cent to the then underdeveloped countries. From the mid-fifties on, along with the establishment of relations between the developing and the socialist countries and with the emerging liberation movements, capital exports to developing countries obtained a primary role among the instruments of power policy and foreign economic strategy of the leading capitalist countries. The value of capital exports to developing countries almost trebled between 1955 and 1965. Capital exports during the first post-war decade lost much of their weight relative to that at the beginning of this century but they were mostly politically and strategically motivated and, consequently, the state overtook the task of preventing, also through capital relations, that certain developed or developing countries should break away from the international capitalist system. With the expansion of the politically motivated government capital exports the terms of the so-called capital and credit market were determined for about two decades not so much by private capital but mostly by the financing practices of the states.

The importance of the economic components of capital exports became again gradually enhanced by the international economic and political changes maturing since the middle of the sixties. The increasing capital intensity of up-to-date sectors and the growing share of the capital-intensive sectors in national economies, fewer constraints on international trade, expansion of the multinational companies, and the growing dynamism and capital absorptive capacity of countries having attained the medium level of development offered favourable conditions for boosting the international flow of capital. The volume of long-term direct capital investments more than doubled in the period 1970 to 1976, increasing from 140 thousand million dollars to about 300 thousand million dollars to 600 thousand million. [1]

As government capital exports were restricted in most developed market economy countries already in the 1970s by the development of a world inflation, and by growing budget deficits, private capital regained its importance in the international flow of capital and its movement is, naturally, determined by profit considerations.

For example according to DAC data the share of private capital in the net capital exports to developing countries amounted to 39 per cent in the average of 1965–67 and to as much as 54 per cent in the average of 1974–75. Since interest, i. e., the return on loan capital is lower than profit, i. e., the return on actively invested capital, in private capital exports direct investments, which earn higher profit, necessarily have a bigger share. Thus, through the changes in the relative shares of state and private capital, the economic criteria of capital exports became effective again and, partly, the distribution of the different forms of capital exports was altered. While in the period from 1950 to 1965 the share of direct long-term capital investments was 25 per cent in the combined volume of direct and loan capital, at the end of 1976 its share already amounted to about a third. In the following discussion the relationships between the export of direct capital and the structural transformation of the world economy will be studied because long-term direct capital investments exert a predominant influence on the structural intertwining between national economies as well as on the international flow of technologies which has become momentous in modern growth.

# Patterns of direct capital exports by countries

For a quarter of a century after World War II the pattern of international long-term capital exports showed a pretty high concentration: the combined share of the USA and the former colonizing countries, namely, Britain, France, the Netherlands and Belgium, was nearly 90 per cent in long-term direct capital exports. The pattern of capital exports began to diversify at the end of the sixties. The growing world economic importance of the Federal Republic of Germany and Japan, their large trade surpluses, the revaluation of the DM and the yen partly necessitated and partly facilitated the establishment of positions in the international capital market. Also Canada, in close relationship with American capital, joined the ranks of the major capital exporting countries. In 1970 the

developed market economy countries that provided then about 97 per cent of the volume of international foreign capital investments had a stock worth 128 billion dollars and within it the share of the USA was 61 per cent, that of Britain 15 per cent, of the FRG 5 per cent, of France 4 per cent and of Canada and Japan 3 per cent each. [2]

Although the bulk of the surplus capital accruing to crude oil producing countries following the oil price explosion in 1973 was deposited with American banks, their smaller direct investments (mainly in the form of buying completely or partially already existing companies) also added to the sources of capital exports. (Table 1)

It is a tangible illustration for the accelerating expansion of capital exports that the volume of foreign capital investments by the four leading capital exporters increased from 18 billion dollars to 42 billion dollars between 1950 and 1960 and amounted to as much as 102 billion dollars in 1970 and to nearly 220 billion dollars in 1976.

The most significant change on the export side of the pattern of capital investments by countries is the decrease of the USA's weight below 50 per cent. There is an obvious connection between the latter and the downward trend of the dollar as from the 1970s, as well as the nationalizations carried out in the developing world (Venezuela, Chile, Saudi Arabia, Iran, Mexico, etc.) which reduced the American investments particularly in the crude oil sector and in other extracting branches. Over and above the direct incentives and barriers, capital exports also show the implications deriving from the general world economic positions and strategies of the various countries. During the guarter of a century after World War II the USA's intention was to use her technical, economic and strategic superiority accumulated in the 1940s and deriving from the internationally unique size of her economy, for a lasting consolidation of her international controlling role. In the economic sphere she pursued this objective by stepped-up exports not of commodities but of capital that would provide control over the raw material resources on the one hand, and over those branches of industry on the other hand which were essential for technological development requiring the most of R&D and which mostly showed a concentration of power (e.g. petrochemistry and production of transport equipments). Utilization through foreign trade of the American comparative advantages asserting themselves in the technological sphere was impeded up to the middle of the past decade by the balance of payments problems of the other developed market economy countries and by the lower wage level of the West European qualified workers. Thus, as regards the USA, for nearly a quarter of a century, the process of internationalization of the forces of production got encouragement primarily from the side of foreign capital expansion. The devaluation of the dollar, the faster rising cost levels of the other OECD countries and the actual disappearance of the earlier gap between the wage levels of American and West European labour created by the middle of the seventies new conditions for American foreign trade expansion and, unlike the case during the last quarter of a century, the role of exports as its carrier became far more important.

In *Britain*, a capital exporter for over two centuries in the economic history of the world, capital export was traditionally the instrument of commodity sales. But capital export gradually lost its export stimulating power in connection with the general lagging

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## Table 1

	USA		FF	RG	Bri	tain	Japan	
	1970	1976	1970	1976	1970	1976	1970	1976
Direct capital investments	78.0	137.2	5.0	20.9	14.7	38.0	3.6	19.4
From this:	120					- Section 1		a and plant
Advanced capitalist countries	53.1	101.2	5.1	13.9	10.3		2.0	8.6
USA	-	-	0.7	2.3		6.7	1.0	4.7
Canada	22.8	34.0	0.6	1.4		6.7	1.0	4.7
Japan	1.5	3.8		0.1			-	-
Australia	3.3	5.5					0.6	2.4
Common Market	11.8	44.0	2.3 .	4.7				0.1 <sup>b</sup>
– FRG	4.6	10.4	-	-				0.1 <sup>b</sup>
- France	2.6	6.0	0.8	2.0				0.1 <sup>b</sup>
- Belgium-Luxemburg	1.5	3.6	0.8	2.0				0.1 <sup>b</sup>
- The Netherlands	1.5	3.7	0.4	1.3				
- Italy	1.6	2.9	0.3	0.7				
- Britain	8.0	15.7	0.2	0.8	0.8			0.7 <sup>b</sup>
Switzerland	1.8	5.8	0.7	1.9				10
Sweden	0.6	1.2	-	0.1				
Spain	0.7	2.0	0.4	1.2				
South Africa	0.9	1.7	0.4	1.2		5.0 <sup>d</sup>		
Developing countries	21.5	29.1	2.2	5.9	4.4	1.6		10.8
Latin America	14.8	23.5	1.0	2.8		0.4		3.3
- Argentina	1.3	1.4	0.1	0.2	0.2			
- Brazil	1.8	5.4	0.4	1.5	0.3			1.3 <sup>b</sup>
- Mexico	1.8	3.0	0.1	0.2	0.1			0.1 <sup>b</sup>
– Venezuela	2.7	1.5						
– Panama	1.2	1.9						
Middle East	1.6	3.2		0.2	1.1	0.2		1.3
– Iran		0.4		0.2				0.1
Africa	2.6	2.8		1.1ª		0.1		0.5
– Nigeria		0.3		0.1	0.2			0.1 <sup>b</sup>
Other Asia	2.5	5.9			0.5		0.8	5.5
– India	0.3	0.4			0.1	0.9		
– Indonesia		1.5						1.2 <sup>b</sup>

Pattern of capital investments of leading capital exporters by countries (thousand million dollars)

Sources: Survey of Current Business, various issues

Notes: a - from this 350 million to Canary Islands (Spain)

b - 1974 data

c – Economist, December 17, 1977;

E. J. HORN: Technologietransfer durch Direktinvestitionen, Kiel, 1974

d – Ministry of International Trade and Industry, Japan's Overseas Investments, 1. 10. 1977
 Newsweek, 10. 4. 1978

behind of the British economy after World War II, with her gradually declining international competitivity and with the worsening terms of capital realization in the British capital market. Along with the decline of the British economy, British capital, often blamed for its unpatriotic conduct, gradually emigrated (irrespectively of commodity flows) in order to improve its terms of realization to the internationally more dynamical foreign extracting industrial sectors, i. e., in the case of Britain, capital exports actually amounting to flight of capital accelerated despite the devaluation of the pound sterling.

The previous capital investments abroad of the Federal Republic of Germany and Japan were liquidated by World War II, and the capital outflows of the two countries were insignificant till the end of the sixties. Commodity exports were the carrier of their dynamic joining in the international division of labour. The main objective of the soaring Japanese capital exports from the 1970s was – to avoid the repetition of an "economic encirclement" prior to Pearl Harbour – to establish a basis of raw material imports independent of the USA and which would improve supply security in a strategic sense. In the case of the FRG the surge of capital investments abroad was motivated by a number of factors: revaluation of the DM, increasing reserves of foreign currency, worries due to the economic policy of the socialdemocratic administration, acquisition of new markets through capital exports, and structural transformation, factors whose impacts intermingled.

The most significant change in the direction of capital exports was the increased and preponderant capital turnover between the advanced OECD countries themselves. At the end of World War II more than half of the stock of capital was found in the countries now qualified as developing. Since that time and particularly from the midsixties the share of the advanced market economy countries was growing at a fast rate and in 1976 it reached about 75 per cent. Astonishingly, the distribution between advanced and developing countries is strongly similar with respect to the USA, Britain and the FRG, while Japan shows an anomaly. The share of the developing countries in the stock of Japanese capital investments abroad was 44 per cent in 1970 and 55 per cent in 1976, and what is more, 69 per cent of the 3.5 billion Japanese capital export of the year 1976 was directed to areas other than the OECD countries.[3]

So far almost the whole of the direct capital exports of crude oil producing countries has been directed to the OECD area while the bulk of capital exports from individual developing countries are placed mostly in neighbour countries.

It is a remarkable phenomenon that the *concentration* by countries of capital exports to advanced capitalist countries is, though with a slight downward trend, higher than that of commodity turnover. The shares of the five major OECD recipient countries in the capital exports of the USA decreased from 1970 to 1976 from 78 per cent to 72 per cent (Canada, Britain, the FRG, France, Australia) from 66 per cent to 63 per cent in those of the FRG (Belgium, Luxemburg, France, USA, Canada, Switzerland), while in Japan's capital exports the share of the USA, Australia, Canada, the FRG and France increased from 65 to 71 per cent. The major capital importing countries are big ones in world economic terms or are centres of multinational corporations.

Within the decreasing share of the group of developing countries in capital imports, Latin America's weight by far exceeds its weight in foreign trade and, despite the nationalizations in Venezuela, in 1970 it took 60 per cent and in 1976 more than 80 per cent from the American capital investments in developing countries. As regards the FRG, the share of Latin America decreased from 60 per cent to 46 per cent. In Britain, the developing member countries of the Commonwealth have a 70 per cent share while as regards Japan the nearby south-east Asian countries participate with about 40 per cent in her foreign capital investments. It may be stated that either because of geographical vicinity or for special political reasons all of the major capital exporting countries concentrate on some groups of developing countries and therein on a few countries. From US capital exports to developing countries the five biggest recipients (Brazil, Mexico, Panama, Venezuela, Indonesia) have a 52 per cent share, for the FRG, this value is 45 per cent (Brazil, Dutch Antillas, the Canaries, Argentina, Mexico), for Japan 54 per cent (Brazil, Indonesia, Abu-Dhabi, Saudi Arabia, South Korea), and for Britain 56 per cent (India, the West Indies, Malaysia, Brazil, Argentina). Brazil, as well as Mexico and Indonesia are prominent capital recipients among the developing countries.

The *dynamics* of capital exports by countries also show an interesting picture and this is by no means identical with the order of magnitude. In the category of the OECD countries the growth rate of capital exports was the highest to the USA, the Netherlands, Belgium, Norway, Spain, Switzerland, France, Japan and the FRG, and was more moderate than that to Canada, Sweden, Italy and Britain, Australia and South Africa. In the category of developing countries, parallel with the growing capital absorptive role of Brazil, Indonesia, Mexico and Panama as well as of the industrialized countries in south-east Asia, the volume of foreign capital investments was virtually stagnating in Argentina, Columbia, India and the Philippines and in the case of the crude oil producing countries and Chile it dropped.

As a rule, capital exports increased with faster than average dynamism to countries with more than average dynamical economic and especially foreign trade development. The exceptions to this trend were the crude oil producing countries and the countries preferred as headquarters of multinational corporations such as Switzerland and Belgium. The correlation with economic dynamism is less close in the case of countries lagging in capital imports, where the presence of foreign capital was motivated primarily by considerations of long-term political developments or, occasionally, by capital restriction measures. Also the old relationships between the size of the given country and the direction of capital exports were washed away. While in the two decades after World War II capital exports were directed mostly to countries with big domestic markets, the list of dynamic capital importers of the seventies contains many a smaller country as well.

#### Sectoral characteristics of direct capital exports

The most essential change in the sectoral patterns of capital exports is the shift between the relative shares of investments into the extracting and the manufacturing industries. Until the end of the 1950s the bulk of foreign capital investments, about half of it, was placed in the extracting branches and the share of capital investments in the manufacturing industries was below one third. At that time the sectoral pattern of the stock of capital still showed the main features of the pre-war division of labour, i. e., the exchange of raw materials for industrial products. In the last decade, owing in part to the unfavourable forecasts about the future of the extracting branches and about the relative price level of raw materials and in part to the endeavours at putting the extracting sectors under national control, the stock of capital inputs in the extracting industries increased only at a very slow rate and its share quickly diminished. Intensification of the international industrial division of labour made manufacturing the target No. 1 also in capital exports. In this decade a qualitative turn has come about in the pattern of capital exports which has resulted in the fact that by now more than half of foreign capital investments have been channelled to the manufacturing industries. (Table 2)

Dynamic recipients of capital exports are also the *non-productive sectors*. Within them, however, the sectors of transport, communications, and public utilities are not attractive for capital investors partly because of their low profitability and partly because of increasing state interference (nationalization or government control). These sectors have a small and decreasing share especially relative to the infrastructural investments carried out by foreign capital at the beginning of the century. On the other hand, the proportion of commercial and financial investments involved by setting up of department stores, banks, and financial institutions, that promote indirect economic control the most, have increased in the capital exports of all the four leading capital exporting countries.

It will be useful to study the specialization of capital exports by sectors in the wake of the development of the international division of labour and the preponderance of foreign investments in manufacturing. Outstanding concentration appears in the capital exports to the chemical industry. The share of the chemical industry in foreign capital investments is five times higher than in the gross domestic product of the advanced OECD countries and twice as high as in the production or export of the manufacturing industry. It is shown also by the sectoral pattern of capital export, by its concentration on the chemical industry, that the trend of internationalization develops the most rapidly in this capital and research intensive and, from the aspect of economies of scale, an extremely sensitive sector. The concentration coefficient of electrical engineering, which is at the head of the list in respect of the rate of technical development, research intensity, and marketing risks, is also higher than unity, but much smaller than that of the chemical industry. The trend of international intertwining of capital is the strongest in these pioneering industries.

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## Table 2

	USA <sup>a</sup>		FRG <sup>b</sup>		Japan <sup>c</sup>		Britain	
Sectors	1970	1976	1970	1976	1970	1976	1970	1976
Mining	8	6 '		3				
Crude oil sector	28	21		5	373	27	10	e A.
Manufacturing industry	40	45	79	77	27	31	60	-
Food industry	4	4	5	4	2	2	17	
Chemical industry	8	9	28	21	2	5	10	
Metallurgy	1	3	7	8	4	5	2	
General engineering industry	8	12	7	8	2	2	4	
Production of transport								1
equipment	3	7	10	7	3	2	1	
Electrical engineering	4		13	11	2	4	8	
Other industries		10	9		12	11		
Leather, textile, and					2			
clothing industries	2		3	3	6	6	5	
Transport and communications								
public utilities	4	3	2	2		14		
Commerce	8	10	2	1	13	15	14	
Financial institutions	10	12	10	10	9	8		

Sectoral pattern of foreign capital investments by major capital exporting countries

Sources: a - Survey of Current Business, various issues

 b – Nachrichten f
ür Aussenhandel 1974/1/4 Bundesministerium f
ür Wirtschaft Runderlass Aussenwirtschaft, 25/77

 Ministry of International Trade and Industry, Japan's Overseas Investments, October 1 1977

The share in foreign capital investments of *the light industrial lagging sectors*, the textile, garments and shoe industries and of the food industry is somewhat above the importance of these sectors from the aspects of production and exports. The measure of *deconcentration* is the most powerful in the metallurgic industry which is also internationally lagging behind, as well as in the vehicle-building industry which has been losing dynamism in this decade, and the concentration coefficient is below unity in the otherwise pioneering general engineering industry, too.

The sectors of metallurgy and engineering used to be much weightier within the investments into the manufacturing industry in the 1950s and 1960s; at that time foreign capital investments were important in the introduction and development of these carrier sectors of technological development. The circumstance that *state interference* is the strongest all over the world in the metallurgical industry, in shipbuilding and in the production of railway rolling stock, gives only some of the reasons for the decreasing

share of the metallurgical and engineering sectors in capital exports. The lagging sectors which are under the strictest state control show much less inclination to (and have much less opportunity for) redeployments, to the liquidation of jobs through capital exports, than do private enterprises for example. The intent of capital export is particularly weak when the capital importing enterprise itself is under state control. In such instances the different conflicts of economic interests assert themselves much earlier on the level of interstate relations and, besides, the terms of realizations are usually less advantageous for the exported capital. Nevertheless all these are still insufficient reasons for the relative lag of the general engineering industry, belonging to the first line of international structural transformation. The answer must be found in the changes in the enterprise strategy of exporting capital and technology.

There are marked differences between the major capital exporting countries with respect to sectoral concentration within the general sectoral trends of capital exports. In the case of the USA, the biggest traditional capital exporter, in spite of doubtless changes, the heritage of the past is haunting: the colonial-type division of labour is reflected in her capital relations. The quickly decreasing but still high proportion of the extracting branches is at the same time related to the American endeavours at achieving control over the natural resources of the world. The most remarkable feature of the otherwise small amount of capital exports to the manufacturing industries is the outstanding importance of the general engineering industry which marks, in the case of the USA, American endeavours toward involvement in the technologically up-to-date sectors (computers, bureau machines, control techniques etc.) of the advanced and the developing countries. In the fifties the share of this sector in industrial capital investments was even higher, the production plants set up through capital export were called upon to circumvent different protectionistic measures. The decrease or stagnation of this proportion is all the more thought-provoking as this sector has increased its weight in international production and trade dynamically during the last decade.

The main sectoral features of British capital exports, another traditional capital exporter now graded No. 2, show a concentration on the internationally lagging food industry and on other branches of the light industry, as well as on electrical engineering. Investments in the metallurgical industry and general engineering are insignificant. The pattern of British capital exports testifies that investments into the light industry and electrical engineering are not agents of deepening the industrial division of labour but, beyond the concern of invested capital for sectors that guarentee usually quick returns, there are also hidden speculations for improving the terms of capital realization. In Japan's capital exports, beside investments in the extracting industry, there is a unique concentration on the textile and the metallurgical industries. The Japanese capital exports to the neighbouring south-east Asian countries and channelled to these two branches created the production plants that now provide about 30 to 50 per cent of Japanese imports of poorer quality textiles and metallurgical products. Investments into electrical engineering are insignifier and the metallurgical products. Investments into electrical engineering perform a similar role but to much lesser extent, and also serve the creation of outwork sites.

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The best adaptation to the system of international conditions of capital exports in this decade has been shown by *the West German capital exports*. Its concentration is internationally unique not only on but also within the manufacturing industry. Nearly one-third of the volume of capital investments abroad is directed to a single branch, the chemical industry. The share of the chemical industry in 1976 was only 5 per cent in the West German gross domestic product, 10 per cent in her manufacturing industry, and 15 per cent in her exports. The metallurgical and engineering industries had a further one-third share in West German capital exports in 1976. The proportion of West German capital investments in the heavy industry was by nearly 40 per cent more than that of the USA, nearly twice as much as that of Britain and three times more than that of Japan.

In consequence of the closer relationship between capital exports and the international division of labour *differences in the sectoral patterns of capital investments made in countries on various levels of development have greatly diminished.* Before the middle of the century the share of the manufacturing industry was higher in capital exports – otherwise small in volume – to the advanced capitalist countries, while in the developing countries the extracting industry was decisive. Within the volume of capital investments made in the developing countries the share of the manufacturing industry increased between 1970 to 1976 from 25 per cent to 38 per cent for the USA, from 36 per cent to 43 per cent for Britain, from 35 per cent to 41 per cent for Japan, and from 65 per cent to 70 per cent for the FRG. Thus, the difference between levels of development is no longer correlated with the sectoral pattern of capital investments and the latter shows a levelling trend. For example in Japan the share of investments into the manufacturing industry is pronouncedly higher within capital exports to the developing countries.

The weight of manufacturing within foreign capital investments is particularly high in certain medium-level industrialized countries, it is e.g. 62 per cent of US investments in Spain, 67 per cent in Brazil, 74 per cent in Mexico, and 62 per cent in Argentina; that is, a share much above the average was channelled to the manufacturing industries. Also from the British and Japanese capital investments in the south-east Asian commodity exporting countries, 60-70 per cent were made in manufacturing and another 10-20 per cent in services related to foreign trade transactions.

The sectoral levelling may be illuminated from another aspect if it is considered that from the volume of American capital invested in the advanced capitalist countries the share of mining and crude oil was 28 per cent, while it was only 18 per cent in the developing countries. Investments into the extracting industries increase at the highest rate not in the developing but in the advanced countries (Canada, Australia, Britain, Norway, the Netherlands). In some medium-level industrialized countries with stronger negotiating positions the share of investments into the extracting industry is downright dwindling (Spain 14 per cent, Brazil 9 per cent, Mexico 5 per cent, Venezuela 13 per cent). Foreign capital investments directed onesidedly to the extracting industry are characteristic only of the most backward countries. In the African countries even in 1976, 75 per cent of the American capital investments went into the extracting industry and only 5 per cent into manufacturing. In the case of Indonesia the share of the

extracting industry was in the range of 80 per cent. Japan made 8 per cent of its African investments in the manufacturing industry and 52 per cent in the extracting industry. The special features of capital imports by countries on the lowest level of development are, however, characteristic of an ever narrowing sector of the international capital flows. Today only about 5 per cent of foreign investments are made in such backward countries where the old sectoral orientation of capital exports toward extracting industries has been sustained. The sectoral features of capital exports have thus revealed that correlations between levels of development and the structure of the international flow of capital are very loose, not significant, and not suitable for qualification. In broader contexts *the sectoral pattern of the flow of capital is affected not by levels of development* but by symptoms related to *the sphere of economic power* (development strategy, global strategy types, manoeuvring ability, and by the relative sectoral competitivity of the respective countries).

# Changing functions of capital export

The review of capital exports by countries and sectors gives some starting points for an analysis of shifts in emphasis having taken place in the functions of capital exports. It will not be without interest to study how much capital exports are characteristic of the basic economic processes of contemporary capitalism, whether its functions and importance have narrowed or expanded, whether it is dynamically growing or decreasing. During the discussion in the Hungarian economic literature in 1966 and 1967, relying on an analysis of the world economic realities of the two decades after World War II, Ferenc *Molnár* said in an article introducing the discussion that "the general importance of capital export in present-day capitalism is smaller and different from what it was 50 or 60, or even 10 or 15 years ago."

In the period of the extensive growth of capitalist world economy and world trade, especially during the quarter of a century before World War II, capital export was a characteristic and general symptom of the countries with already developed economies. and - as it then seemed - it was playing a dynamically growing role in draining the surplus capitals and commodities, in improving the terms of capital realization, in the generation of the growth of national incomes. It obtained economic-historical peak importance in Britain where the receipts from capital investments represented at that time 10 per cent of the national product, two-fifth of exports, about half of the gross domestic formation, where the export of new capitals amounted to 4 to 7 per cent of the national product, and which resulted in what is a typical picture of a parasitic national economy. [5] The proportions were remarkable though not like the above in France, Switzerland, the Netherlands and Germany, moreover, the capital exports influenced the development of capital importing countries such as Italy, Austria-Hungary, Japan, Russia, etc. Does it hold that capital export is of similar or increasing importance in contemporary capitalism, is that economy invariably parasitical? Let us have a look at the aggregate indicators:

The 1975–76 increment of the dynamically developing capital export in the past years was below 1 per cent of the gross national product in the USA, 0.6 per cent in the FRG, and 0.8 per cent in Japan. In all three cases the magnitude of capital exports was ranging between 3 to 6 per cent of domestic investments.

The international export of working capital amounting to appr. 30 billion dollars per annum in the average of 1974–1976, was well below 1 per cent of the gross national product and below 4 per cent of total investments of the capital exporting countries in the period under study.

Thus, capital export cannot play any appreciable role in absorbing the surplus goods and capitals, and its macroeconomic importance is much more modest than it used to be at the turn of the century. It is a different problem that, contrary to the trends in capital flows of almost half a century after the first war, in the last decade the international intertwining of capital has intensified and, in the group of the major OECD countries, the macroeconomic importance of capital export is again on the increase. The national economic importance of capital exports is of course rather different in each advanced market economy country but a few basic indicators can illustrate the main lines of the change in its importance. (Table 3)

The volume of foreign capital investments of the leading capital exporting countries increased at a much faster rate than the gross national product. In the case of late-comer capital exporters as the FRG and Japan, the earlier lag in the national economic weight of capital exports and in the order of magnitude of foreign investments per capita relative to the Anglo-Saxon powers has appreciably decreased. However, within the increasing national economic and world economic importance of capital exports, *the functions of capital export have significantly changed*.

Following the changing international power relations the role of capital exports in the control of *raw material resources* is gradually diminished. The developing countries,

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Changes in the national economic importance of the volume of capital investments abroad

	Capital ir in percen G	Capital investments in percentage of the GNP		l investments capita ollars
	1967	1975	1967	1975
USA	7.4	8.8	299	623
Japan	1.2	3.1	15	135
Britain	15.8	16.9	319	694
FRG	2.4	3.8	50	259
Canada	6.1	5.4	171	358

Source: White Paper on International Trade, Tokyo, 1977. MITI

once the extracting industrial bases of the capitalist world economy have attained particularly significant results during the last decade in restricting the positions of foreign capital invested in the extracting industry. The major OECD countries hoped to defend themselves against the changes in power relations by developing the extracting industries of the advanced market economy countries and by enhanced capital exports thereto (the share of the OECD countries in the volume of capital invested in the extracting industry increased between 1968 and 1975 from 54 per cent to 75 per cent. The leading OECD countries tried to damp the unfavourable outcomes of the steadily expanding international commodity agreements by activated economic diplomacy. Thus the role of capital exports as a means of controlling and influencing the raw material sources and the trade in raw materials for the benefit of the leading powers has been gradually taken by the shifting of the geographical centre of extractive production, and by the instruments of economic diplomacy.

The extra profit produced in the backward countries used to be decisive in improving the terms of capital realization. The changed attitude of private capital towards the developing countries is explained neither fully nor satisfactorily by political reasons (nationalizations, constraints on the manoeuvring ability of foreign capital through economic and political instruments, etc.). The changing attitude is determined decisively also by the economic-structural transformation and by the changing rate of profit. It is known from the history of capital exports that in case of satisfactory profit private capital will not refrain from running political risks. In the case of US capital at the end of the last decade, in the average of 1968–69, the returns on capital invested in the advanced capitalist countries amounted to 8 per cent while on that invested in the non-oil producing developing countries it was 12 per cent.

Computations based on different issues of the Survey of Current Business show that the gap between the profit rates of the two groups of countries decreased in 1975 to 3 per cent. The levelling trend of the profit rate depends of many factors. The organic composition of capital is increasing in the developing countries as a result of mostly industrial investments; because of poorly developed infrastructures the costs of additional investments are higher; the technically up-to-date equipments are operated by local labour with lower efficiency; economic and political uncertainty, etc. have a cost increasing effect and so forth. Owing to the said factors the rate of profit goes down and the magnitude of extra profit is decreasing. Differences in the level of the rate of profit by countries are therefore not determined by the level of development but by the dynamism and the degree of efficiency of the various economies. In the cases of Japan, Brazil, and Indonesia the rates of profit were similarly above the average despite the different levels of development. Furthermore, the USA's realized profit originating from capital investments abroad is about 15 billion dollars, less than 1 per cent of the gross domestic product as against the 10 per cent in the golden age of British capital exports. [6] So it would be an exaggeration to state that the annual returns on capital investments abroad are of any decisive importance among the driving forces of the capitalist economy.

Unlike its weakening role in controlling raw materials, in draining excess capital, and in improving the terms of capital realization, the importance of capital export is increasing in the foreign trade relations of the more advanced capitalist countries.

In the last twenty years the dynamism of the different zones of the international division of labour has become more and more differentiated. Foreign trade increased nearly twice as rapidly as production; despite the shift in relative prices the international capital flows increased at a rate actually identical with that of foreign trade, and the rate of expansion was the highest in the exchange of licences reflecting the technological integration of the various economies. At any rate, as against the experiences of the first half of this country, the capital flows are among the most dynamically expanding fields of the international division of labour.

However, it would be too simple to explain the growing world economic significance of capital flows with the *export incentive* role of capital export, with its role in preparing commodity exports. We have seen that in the case of the USA, capital exports served global strategy and power policy purposes in the first place and, in the second place, they were supposed to reduce the cost level of developing sectors that would guarantee technological superiority by organizing a network of international sites for research-intensive and risky but technically pioneering sectors and to improve this way the terms of sectoral capital realization. The function of "creating" exports only followed in the third place. As to Britain, export encouragement was completely overruled by the flight of capital with the aim of improving the terms of capital realization. In the last two decades the connection between the British exports of capital and that of goods has been extremely loose by international comparison.

Until the beginning of the 1970s Japan's instrument for participation in the international division of labour was commodity export with hardly any capital export to back it up. The main objective of the direct capital export started in the seventies was to create the import base. Thus, the Japanese direct capital export was not primarily aimed at direct export creation but at import creation and until the end of the last decade it was very much similar to the type of capital characteristic of the first half of this century.

The extremely fast changing function of the foreign capital investments, the putting of capital exports at the service of developing global economic strategy, provide a good illustration of the flexibility of Japan's real economic processes and of her foreign trade strategy. The stormily developing textile and electrical engineering export bases in the neighbouring south-east Asian countries, supported by comparative wage advantages, mostly squeezed out the advanced OECD rivals from the Asian markets by the middle of this decade and have been taking an even bigger cut from the markets of the OECD countries too. The speed and extent of this process is shown by the data on the exports of the Japanese manufacturing enterprises set up in Asia; they exported 16 per cent of their output in 1970 and 37 per cent in 1976. Within that, the export share output was 70 per cent for Hong Kong, 52 per cent for Taiwan, 48 per cent for South Korea and 37 per cent for Singapore. The world economic orientation of the export bases is illustrated by the share of third countries in the exports of Japanese affiliates in Asia: 94 per cent

for Hongkong, 82 per cent for Taiwan, 73 per cent for South Korea and 86 per cent for Singapore, and only the little remaining parts were a direct import base for Japan.[7] *The still continuing expansion of the export bases* has, as a rule, dynamized Japan's immediate world economic environment, the south-east Asian area, it has weakened the competitor economic powers and has given a direct and powerful encouragement to the development of the modern Japanese branches which export technologies to the export bases and for the transformation of the structure of Japan's economy.

The best example for the strategic behaviour of the "late-comer capital exporter" is the FRG which developed its capital export with a big historical delay relative to other countries. The West German capital export shows in its characteristics a close relationship with the latest trends in economic development and foreign trade strategy. The West German capital making its debut at the end of the 1960s found the natural resources of the world under the control of other rival powers and it did not really find capital investments desirable in the extracting sectors – most prone to the risk of nationalization – for establishing its international power positions and for an international division of labour that would be freer from problems. FRG capital exports have been thus much more expressedly concentrated onto the sectors of the manufacturing industry than those of other major competitors.

This coincidence of the sectoral concentration of capital export with the export orientation of certain West German branches of industry clearly shows the indirect export incentive role of capital export. The affiliates abroad have had an export creating effect and have greatly promoted the world economic expansion of the West German sectors in the vanguard of technological progress.

The role of direct export creation has been nearly absolute till the beginning of the present decade and is still decisive in FRG capital exports. The first modification perceivable since the beginning of the 1970s was related to the fact that the FRG had to increasingly revert to employing guest workers in order to maintain her competitivity in the labour intensive and, from the technological point of view, simpler light industrial branches already from the second half of the 1960s. The growing infrastructural burdens of direct "labour import", its climbing wage level, the related sharpening social conflicts have worked in recent years toward the relocating of the light industrial production plants from countries with high wage levels, where these were no longer competitive, into countries with low wage levels and to scale up the "indirect" export of labour instead of increasing the number of guest workers.

Thus, the not yet sizeable capital export to the light industrial branches renders only indirect service to export orientation (through improving the environment of the most advanced sectors in foreign markets and their domestic wage levels), its *indirect impact is import expanding* and marks the redeployment of light industrial branches working with high wage costs and the substitution of their production through imports from countries with low wage levels. Though the West German light industrial imports originate not only from developing countries but to a considerable extent from South European and CMEA countries, it is more than remarkable that in the capital investments

into the textile, garments and leather industries the share of the developing countries increased between 1970 and 1976 from 16 per cent to 22 per cent.

The third foreign trade function of capital exports, i. e., the establishment of export bases producing goods for the world market under West German control, has been evolving as from the middle of this decade. The boosting of the Volkswagen plant in Brazil, the development of light industrial bases abroad (West Indies, the Canaries, Mexico) prior to the export campaign of the textile garments industry are already indicating the entry of elements of a global economic strategy and the offensive nature of capital exports.

## Some lessons

The purposes and types of capital exports rather vary by major OECD countries and have also changed as a function of international economic and political development. The stage of capital exports when they were channelled mainly to the extracting industry came to an end in the middle of this century. The manufacturing industry had begun to gain in importance as capital importer in the second half of the century and became predominant by the 1970s. In the period from 1950 to 1970, capital investments into manufacturing were primarily import substitutive in nature and were aimed at circumventing the protectionistic barriers of national economies. In the 1970s, along with the expansion of the international trade flows and of mutual interdependence, there has been a steep increase in the proportion of capital exports for the creation of manufacturing *export bases* supplying the world market. The previous defensive feature of the strategy of capital exports has become less pronounced and, also with the intensification of world economic competition, the offensive elements have become stronger.

Among the motives of capital exports the importance of political-strategic factors increased in the quarter of a century after World War II. In the 1970s the economic incentive became more powerful again but it should not be forgotten that in the *strategic decisions* of this decade economic considerations are much more important than they used to be. Especially the American capital exports served global strategic objectives and play an enhanced role in the intensification of cooperation of certain advanced and medium-level industrialized countries. The capital exports of Japan and the FRG are not too influenced by global strategic considerations as yet, but both countries utilize capital exports no longer in the framework of bilateral economic relations but in that of an increasingly comprehensive though with respect to priorities a different *foreign trade strategy, in part for boosting their structural transformation and in part for consolidating their foreign trade positions.* Capital export as a combined instrument of the development of economic structure and of strengthening world economic positions is becoming more and more pronounced also in the cases of several advanced small market economy countries (the Netherlands, Switzerland).

In the capital relations of the vanguard sectors of technological and structural transformation it is a highly important circumstance that the increasing concentration on

big countries or on big multinational enterprises has consolidated the world market positions of international big capital in several vanguard sectors. In the period from 1955 to 1975, despite the dynamism of international capital exports, political development and the differentiation of world economic power relations created such a situation in which the capital *working abroad* was forced to certain *compromises*, the terms of capital export tended to improve from the point of view of the recipient countries. This trend still continues with respect to the whole of capital exports. Increasing oligopolistic trends, acceleration of the concentration of the vanguard sectors in big countries and big enterprises in this decade has, however, strengthened the bargaining power of the big enterprises in leading OECD countries. Resistance to international capital has mellowed in many countries. In its course the big international corporations have shown reluctance to hand over the products of modern, R&D intensive sectors and the up-to-date technologies in the framework of traditional commodity or licence transactions.

The current sales practice prevailing in the international market of technologies shows that it is becoming less and less possible to obtain the most advanced technologies in the framework of simple purchase or licence purchase transactions. Receipts accruing from licence sales are disproportionately small in comparison with the climbing costs of advancing up-to-date technologies and for this reason technology exporters are inclined to give their technical achievements only on condition of total or partial control over or ownership of production in the field making use of the technology. Evolution of this tendency is shown by the fact that in the licence receipts of the USA, with an ever growing weight in the licence exports of the advanced capitalist countries, the share of affiliated companies increased between 1971 and 1975 from 76 per cent to 83 per cent. The weight of licence imports transacted in the framework of the turnover of affiliated companies increased in the first half of this century from 60 per cent to 65 per cent for England and from 56 per cent to 77 per cent for the FRG. [8] Another fact of this process is shown by the shareholdings of the foreign affiliated companies in the sectors belonging to the vanguard of technological development which are the most R&D intensive ones (where the weight of research and development expenditure in the total turnover of the company is above 5 per cent): 67 per cent are sole shares, 22 per cent are majority shares and only 11 per cent are minority shares. On the other hand, in the least R&D intensive sectors the exclusively shared affiliated companies only amount to 32 per cent, the majority shared ones to 44 per cent, and the minority shared ones to 24 per cent. [9] This process manifesting itself on an international scale can be observed also in the advanced capital exporting countries. Thus, in the seventies technological transfer separates itself more from "normal" trade flows and is more closely linked to intercompany integration that guarantees enhanced control and higher lucrativity for the party handing over the technology - and one of the basic agents of this integration is capital export.

It can be therefore stated that the last decade has brought about significant changes in the structure of international capital turnover by product sectors and by markets. The composition by markets (countries) of the international long-term direct capital flows in this turnover is characterized by growing diversification on the export side, an almost

unchanged concentration on the import side, and a certain fading of the exporting or importing profiles which were still sharply drawn in the 1950s and 1960s.

From the Hungarian point of view it is not useless to pay more attention to the fact that the international direct capital flows are increasingly linked to the world market positions, to the accelerating transformation of economic structure, to the transfer of the most advanced technologies and to the establishment of up-to-date marketing organization. Owing to the stronger international bargaining power of the major capital exporters, the terms of obtaining capital connected with import of modern technology have become harder in the second half of this decade and, therefore, a continual "maintenance" of the system of capital import regulation and providing for terms of cooperation with foreign capital which are attractive also by international comparison have become tasks of growing importance. The role of capital relationships not only in the domestic technological and structural modernization but also in stimulating the new industrial exports and particularly the machinery and chemical exports through setting up enterprises abroad is well illustrated by the examples of some medium-developed countries and European advanced small countries which show exceptional dynamism in the transformation of the economic structures and in the expansion of industrial exports.

# References

- 1. World Financial Markets, December, 1976.
- 2. КОВРИГИН, Б.Б.: Экспорт капитала. Москва, 1977. "Наука". pp. 27-28.
- 3. Economist, December 17, 1977.
- MOLNÁR, F.: Az imperializmus lenini elméletének néhány problémája (Some problems of the Lenin-theory of imperialism.) Közgazdasági Szemle, 1966. No. 11, pp. 1336–1348
- 5. KÁDÁR, B.: Egy gondolatébresztő évfordulóval kapcsolatos vitához (To the discussion connected with a stimulating anniversary.) Közgazdasági Szemle, 1967. No. 4, pp. 487–493
- 6. OHLIN, G.: Foreign aid policies. OECD, 1966. p. 91
- 7. OZAKA, T.: The emergence of Japan's multinationalism, patterns and competitiveness. Asian Survey, December, 1976. p. 1049
- 8. MÁDI, CS.: Egyes tőkés országok licencia és know-how kereskedelme (The licence and know-how trade of certain capitalist countries.) Világgazdaság, March, 1978.
- KRASZNAI, Z.: A multinacionális vállalatok tőketulajdonának formái (Forms of capital property of multinational companies.) Világgazdaság, March, 1978.

# ИЗМЕНЕНИЯ СТРУКТУРЫ МЕЖДУНАРОДНОГО ЭКСПОРТА КАПИТАЛА

#### Б. КАДАР

Прошедшее десятилетие внесло существенные изменения в отраслевую и географическую структуру и функции международного движения капитала. Имевшая раньше место тесная взаимосвязь между уровнем развития стран и отраслевой структурой международного перелива капитала сегодня имеет уже меньшее значение. В географической структуре самое существенное изменение означает выход на передовые позиции в вывозе капитала ФРГ и Японии, возрастание роли развитых капиталистических стран как мест помещения капитала, определенное размывание профиля экспортеров и импортеров.

Движущие мотивы вывоза капитала в меньшей степени имеют непосредственно политический характер, чем это было на протяжении двух послевоенных десятилетий, однако внешнеэкономическая стратегия крупных предприятий и государств, значение которой возросло, и далее косвенно содержит в себе значительные политические элементы.

Значение вывоза капитала в национальной экономике ведущих стран-экспортеров капитала имеет возрастающую тенденцию, и его основная функция состоит в ускорении структурных преобразований экономики и улучшении позиций в мировой экономике. Вместе с тем он играет возрастающую роль в распространении передовых технических и организационных методов, в углублении международного разделения труда в промышленности и в усилении взаимной экономической зависимости.

Относительное ускорение вывоза капитала оказывает влияние на структуру занятости, создает новые рабочие места в технически передовых отраслях промышленности развитых стран и в развивающихся странах, но в то же самое время в массовом масштабе ликвидирует рабочие места в отсталых отраслях развитых капиталистических стран и приводит к значительной общественнополитической напряженности. Автор констатирует, что новые направления перелива капитала могут создать менее благоприятные мирохозяйственные условия для роста как более отсталых в экономическом отношении стран, особенно для стран, вставших на прогрессивный путь развития, а также для социалистических стран.



Acta Oeconomica Vol. 23 (1-2), pp. 95-129 (1979)

# P. ERDŐS–F. MOLNÁR

# PRICES, PROFITS, DEFICIT FINANCING

# (The Case of the US Economy, 1968–1977)

In the article the changes of some macroeconomic variables of the US economy in the 1968-1977 period are analyzed with the help of the formula for the price level, a new and broader variant of the same and *Kalecki*'s profit equation. The analyzed changes in prices and profits are presented both in numerical tables and on charts. Certain limits of demand management and anticyclical economic policy are also shown.

It is no novelty that the economy of the United States – and that of the capitalist world – is constantly tossed about between the Scylla of inflation and the Charybdis of heavy unemployment. More recently, however, it is ailing simultaneously from inflation as well as from unemployment. The state of things formerly thought of as an impossibility – virtually galloping inflation amidst an economic slump – became a fact in 1974-75.

In this paper we are going to present not only in tabulated form but also on illustrative charts

1. the qualitative and quantitative effects of different factors on changes in the price level - that is, in the present case, on inflation;

2. the extent of the influence of different factors on changes in profits.

We shall also confront changes in the government deficit with changes in profits and investment.

We shall have the opportunity to draw also some conclusions of theoretical character, as well as to outline certain limits concerning the effectivity of fiscal policy. There is no room in this paper to analyze also the possibilities inherent in monetary policy. Instead, in these prefatory remarks we express our "well founded suspicion" that while restrictive monetary policy is a very proper instrument for bringing about recessions, monetary expansion, although a precondition of satisfactory economic growth, is by far not a guaranty of the latter one.

In a paper published about a year ago in Acta Oeconomica [1] we presented a method for the estimation – on the basis of official US statistics – of actual data needed for our analysis but not available from US statistics directly. Hence we do not want to go into the details of this subject. In this paper we use also our estimated data as ones depicting facts correctly. We do so not only in lack of better ones, but also because, although our estimating errors might render the absolute magnitude of our data inaccurate, we are strongly convinced that such errors do not distort the qualitative

aspects of the changes, and here we are essentially concerned with these latter ones. (In our text we shall use – for the sake of brevity – "capitalists" as a synonym for non-wage earners and similarly "workers" for wage and salary earners.)

# I. Price level and ex post noninvestment demand

# 1.1 The theoretical $p_c$ formula

The subject of this part of our paper is an analysis of the price level and the realized consumer and government demand. Our analysis will be based on a series of diagrams. In the analysis we are going to use a version of the  $p_c$  formula – constructed by Péter Erdős and already well established in academic teaching in Hungary – as a tool for studying and analyzing the price development of and the demand for consumer goods in the United States in the last decade.

This formula was originally constructed in order to explain how modern capitalist money, severed from gold, might fulfil the function of measuring value levels; this being one side of the function of money as a measure of value (the other side being that of measuring value proportions). Formulating the same question on a less abstract level we might say: the question to be answered is to determine the general price level under conditions when money has no intrinsic value and is subject to inflation. The answer given with the help of the  $p_c$  formula is, however, only a partial one. It is an answer which relates only to the price level of consumer goods; while as to the price level of producer goods one can deduce from it only so much that the latter one has to adjust itself by and large to the price level of consumer goods.

The original formula gives us the average price of a unit volume of wage goods in the given period. It was based on the assumption that: 1. workers spend exactly what they earn and 2. the volume of capitalists' consumption is pretty rigid.

In this form the formula has became well known in Hungary. In the numerator of the simple formula we find the amount of the nominal wages of working people. Its denominator is not the volume of consumption goods *purchased* but that of those *produced* in a given period, less the volume of capitalists' consumption. (Working people spend by and large their wages on consumption; there is no significant difference between the volume of commodities sold and produced; and the volume of capitalists' consumption is inelastic – this triple assumption is to be found behind the simple formula.) This simple version of the  $p_c$  formula can give us exactly, of course, neither the prevailing price level, nor the partial purchasing power of money having consumer goods as its domain of definition. It gives us, however, something more than a simple tautology. It interprets and explains, based on essential relationships, the trend prevailing in the price level of consumer goods or – what is the same – in the important partial purchasing power of money during a number of years. That much is certainly true, at least as far as galloping inflation does not render even the meaning of such a trend dubitable.

# 1.2 The realistic $p_c$ and $\Delta p_c$ formulas

In this paper, however, we are interested not simply in knowing the average, approximative value of the price level or partial purchasing power, but – as far as possible – their exact magnitude. Hence we have to make use of a broader version of the  $p_c$  formula. This involves, first of all, some formal changes.

Namely, the numerator of the formula will comprise wages and salaries, other labour income and also some minor items as, for example, interest received by wage earners on their saving deposits (all this will be called for the sake of brevity wages); the numerator will also comprise government transfers to persons (pensions, social security payments, unemployment benefits and the like), but we shall subtract from this sum direct taxes and similar payments by wage earners (including also their contributions for social insurance), and we shall have to subtract also the amount of their net saving.

The denominator of this broader formula will comprise only the difference of two terms. As diminuend we shall have the volume *not* of consumer goods produced but that of consumer goods purchased, and as subtrahend the volume of consumer goods purchased by capitalists for their own consumption. As to this latter item we would like to remind the reader that the purchase of durable consumer goods and homes is a one-time act, while their consumption is a continuous process. This is important in this context, because, however well founded is our assumption which regards the current consumption volume of capitalists inelastic, the total amount of their consumption expenditures is by far not so inelastic: it is rendered more volatile by the fluctuations in their sometimes more sometimes less massive purchases of consumer durables and homes.

In any case the quotient of the sum of the terms in the numerator, and in the denominator will give us the price coefficient of consumer goods, its formula being:

$$P_{c} = \frac{W + Trf - T_{w} - S_{w}}{C_{v} - c_{cv}}$$

Where: W = wages, etc.

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Trf = government transfers to persons

 $T_w$  = taxes paid by wage earners

 $S_w$  = wage earners' net saving

 $C_v$  = volume of personal consumption

 $c_{cv}$  = volume of capitalists' consumption.

Yet what we are presently interested in is not this price coefficient itself but its year-to-year changes. The formula expressing such percentage changes will be called the  $\Delta p_c$  formula. In order to determine the value of this new formula we have computed, one by one, the yearly increments or decrements of each item figuring in the  $p_c$  formula, and then recomputed *these* increments or decrements as percentages of the value of the numerator, respectively – in the case of the volume of total and capitalists' consumption – of the denominator in the previous year. Following this we computed – separately for

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the numerator and the denominator – the algebraic sum of those percentage differences. By adding 100 to each of these two sums and forming their ratio multiplied by hundred we obtain the index of change in the price level for the year in question (we obtain for example that the price level increased from 100 to 103 per cent), and by subtracting 100 from the figure thus arrived at, we shall get the percentage increase of the price level over the previous year. (In the above example: 103 - 100 = 3; i. e. the price level increased by 3 per cent.) In the year 1974 the changes in all terms figuring in the numerator expressed as percentages of the numerator's value in the previous year were: wages: +11.5, transfers: +3.1, taxes paid by wage earners: +4.7, net saving of wage earners: +3.1. Hence, compared to the previous year, the numerator increased by 7.8 per cent. The volume of consumption figuring in the denominator decreased in comparison to the denominator's value in the previous of capitalists' consumption remained practically unchanged, hence the difference of these two terms decreased by 2.4 per cent. Thus the percentage change of the price level was:

$$100 \cdot \frac{107.8}{97.6} - 100 = 10.4$$
 per cent.

Well, we want to illustrate graphically the partial changes described above, their relative shares in the overall change. "There is the rub": how to illustrate the relative weights of terms in the change of a fraction, which terms figure as addables partly in the numerator partly in the denominator of the same fraction? Luckily it is possible to illustrate the above relationships simply and with a distortion not exceeding 0.2-0.3 percentage points. Namely, it is easy to prove that a term having the form  $100 \frac{a}{b} - 100$  (in our example the term  $100 \frac{107.8}{97.6} - 100$ ) approximately equals (a-b), if the denominator is not very different from 100 - and this requirement is always met in the cases studied here. Thus:

$$100 \cdot \frac{107.8}{97.6} - 100 = 10.4$$
 and  $107.8 - 97.6 = 10.2$ 

Those said above are illustrated by the diagram for the year 1974 in Chart 1.1.

We may read the diagram in the following way: the increase of wages and transfers would have increased the price level by 11.5 + 3.1 = 14.6 per cent from 1973 to 1974, if the volume of consumption by wage earners had remained unchanged and if factors reducing the price level had not been simultaneously at work. The increase in taxes paid by wage earners and the increase of their savings subtracted, respectively, 4.7 + 2.2 = 6.9 per cent from the purchasing power, but an effect opposed to this one was produced by the decrease in the volume of consumer goods bought for wages. All in all, the diagram indicates an increase in the price level equaling 14.6 - 4.4 = 10.2 per cent, while the more accurate value (arrived at by division) was 10.4 per cent.



Up to now we have discussed the formal changes resulting from expanding the scope of the  $p_c$  formula and rendering it concrete. It was also mentioned how we succeeded in *illustrating* the overall change in the value of  $p_c$  brought about by the changes in its individual variable components. But the application of the broader  $p_c$  formula in the way described above results not only in a formal change but also in a substantial change concerning the meaning of the formula.

# 1.3 Prices under competitive and oligopolistic conditions

As already stressed, the  $p_c$  formula served originally as a rational explanation for the purchasing power of money severed from gold. It fulfilled this role by rendering possible to interpret the price level of consumer goods prevailing at any moment in time. So much is true. And so much being true we are tempted to claim more: to state that the changes in the components figuring in the formula explain satisfactorily the cause of the price changes occurred and, hence, also the causes of inflation experienced. We, economists, are namely used to reasoning in terms of functions in which the price change is a dependent variable, uniquely determined by the totality of other variables regarded as independent. This conditioning of ours is mainly a result of the fact that we can only seldom free ourselves from the assumption of classical political economy – sometimes explicitly stated, sometimes only tacitly implied – according to which almost perfect competition prevails on the market.

Indeed: in case of perfect competition prices are formed over the heads of economic agents, independently of their will and in this sense by objective forces, although these forces work only through the conscious actions of economic agents. It is, of course, also true that the minds of these agents adapt themselves to the objective factors of reality not immediately but only through a lengthy process. On the other hand it is certainly true that in the case of perfect competition the prevailing prices are for the *individual* agents on the market, as it were, given from without, and as individuals they are unable to change them to any perceptible extent.

Let us, however, also consider the other extreme case, that of complete monopoly. In such a case it is the managers of monopolized branches who determine the market prices of their products. They, of course, do this not independently of the state of the market, of the market forces recognized by them. It is also evident that under the conditions of lasting inflation they set their prices higher and higher. By doing this they themselves dictate – constrained, however, by market forces – the course of inflation as well. Reasoning in the framework of such a model price changes ought to be regarded as independent variables, and the volumes of goods marketable at those prices become the dependent ones. This is especially true for the goods for which the  $p_c$  formula is valid, namely those serving personal consumption, since their part consumed by capitalists is inelastic, while the volume of consumer goods bought by wage earners from their given nominal wage sum decreases when prices go up and rises when they are reduced.

In such a model it is almost meaningless to raise the question, what are the objective causes\* bringing about such and such a percentage rise in the price level of consumer goods. In this case the price depends on expectations (of course, influenced also by objective conditions). In reality the market is neither perfectly competitive nor completely monopolized. The contemporary market is Janus-faced: a part of it is governed by conditions similar to perfect competition, while the other part is strongly oligopolistic and we can only guess that it is this second part by which the character of the total market is to a great extent determined.

# 1.4 The Janus-faced character of the $\Delta p_c$ formula

And – this being what we were driving at above – also our  $\Delta p_c$  diagrams are Janus-faced. Taking the volume of consumer goods sold as given, we can regard the diagrams as showing the percentual change in the price level rendered possible by the quantities figuring in the numerator of the formula. From this aspect we might regard our diagrams as indicating changes in the price level (a price coefficient). And the other way round: taking the change in the price level as given, we might say that our diagrams show the change in the volume of consumer goods sold rendered possible by the quantities figuring in the numerator of the formula. From this point of view we might regard our Apc diagrams as depicting and interpreting the changes in the volume of sales (realized demand) of goods serving workers' personal consumption. In reality - because, among other things, of the Janus-faced character of the market, - neither the change in the price level, nor that in the volume of sales of consumer goods are quantities which can be known ex ante accurately. Our diagrams really indicate the way how the mutual adjustment of the terms figuring in the formula (the actually spendable money income of wage earners, its unspent part, the volume of sales, "realized demand" of consumer goods and the price level) took place; and this in a period of permanent inflation during which the economy was undergoing also a mild recession and even a real crisis.

Our diagrams indicate the extent to which the factors depicted in them rendered an increase or decrease of inflation coupled with an increase or decrease in the volume of sales of consumer goods possible. But we can hardly formulate this statement in such a sense that our diagrams can show which factors, and to what extent were the *causes* of the exact pattern in which inflation and sales' volume adjusted themselves to each other. Our diagrams do not and cannot explain the last causes of the phenomena illustrated.

\*Under objective causes we understand here those governed not by individuals but by the "invisible hand".

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# 1.5 The numerator of the formula

The numerator of the  $p_c$  formula does not comprise the total effective demand for consumer goods expressed in money terms, but only a part of it – although an overwhelming one. This numerator gives us the amount of money which, originating in the different incomes of wage earners, flows to the market of consumer goods. This amount of money represents demand in money terms: its increase raises the amount of money paid for consumer goods by the same amount and hence – other things being equal – the realizable price-sum as well. If, however, we really wanted to follow up the links in the chain of causes and effects bringing about a change in this demand, then we should have identified accurately the reasons for the wage earners' income being as much as it was, and for its flowing to the market to an extent as it actually did. This, however, we did not and could not do.

Inflation was rampant. Working people tried to defend themselves against the consequences of price increases by getting their nominal wages increased. They have led an organized fight for higher wages. They compared expected price increases with expected increases in productivity, they compared their own wage level with that of other strata of working people. They formulated their wage demands on the basis of such comparisons and taking also into account existing power relations. They succeeded in enforcing that much of their demands; neither more nor less. And this is only the level of wages, not their sum. Moreover: owing to the given institutional framework, there was an increase in their nonwage income. This increase was not independent of the rate of employment and unemployment, since it included also unemployment benefits and other government transfer payments. (Unemployment is not simply a function of the rate of employment, but also - for example - of demographic factors). It is, further, a fact that direct taxes drained so and so much from the gross money income of wage earners. These are the facts. It was not by the working of any deeper law of economics that exactly this and that much had to happen. We are forced to begin our analysis by simply accepting these facts and not by attempting their quantitative explanation.

Moreover: the difference between the wage earners' income and the deductions from it is not yet income spent. Between this item and effective demand we find the net saving or dissaving (overspending) of wage earners. During the years under study wage earners' savings were rising in the United States in "bad" years and diminishing (or changing into overspending) in "good" ones. We think to understand the reason: in bad years, being afraid of the future, of possible unemployment, they made savings, while in the good ones they made extensive use of consumer credit and mortgages for purchasing homes. So much is probable and understandable. We do not know, however, why the saving or dissaving of wage earners changed by exactly this or that amount.
## 1.6 The denominator of the formula

Let us continue by looking into the changes of the data in the denominator. The terms figuring in this denominator represent volumes. We derive volumes from data at current prices by using proper price deflators. The latter ones we take from the official statistics. But by doing this, we already accepted the actual rate of inflation, and used it when calculating the denominator.

One of the data figuring in the denominator of the  $\Delta p_c$  formula is the change in capitalists' consumption. This figure was estimated by ourselves\*. Regardless of the greater or smaller accuracy of our estimates the change in this volume is anyway insignificant. So we do not have to worry much about it. The volume of total personal consumption, however, presents a a more intriguing problem.

Indeed: why did the volume of consumer goods sold in any given year of the period under study increase or decrease exactly by the amount it did?

Trying to answer this question we can, instead of giving a real explanation, only launch out into explanations. This will be complicated, but essential and - unfortunately - we shall have to begin somewhere with Adam and Eve. We should have to launch out into explanations in different ways, depending on whether we begin with one of the extreme cases, that of perfect competition, or with the other one, that of a completely monopolized market.

In the case of perfect competition producers cannot directly regulate either the unit price of products or the total amount of commodities coming to the market. So much is clear that both the price level and the volume of commodities sold are each other's functions. Theoretically, if we knew the amount of one of them, we could tell the amount of the other, but in order to know the amount of the former we have to know that of the latter. Neither of them can we know without knowing the other.

The neoclassical school "solves" this dilemma by determining separately the amount of commodities produced by each individual producer, with the help of the completely erroneous theorem that such an amount will be produced that its marginal cost should coincide with the market price. But also this train of thought leaves the problem of price level unsolved!

Ex post overall effective demand – expressed in money terms – for the total amount of wage goods, the latter making up the overwhelming part of consumer goods, is

\*In the original version of the  $p_c$  formula C represented not the volume of consumer goods sold but that produced. It was absolutely logical that, to arrive at the volume of workers' consumption, we subtracted capitalists' consumption from C, because in this case the volume of workers' consumption is a residual quantity. For the present modified version of the formula, however, this method seems wantonly complicated, the denominator depicting workers' consumption seems to be independent from C, i. e. from the total personal consumption. As a matter of fact, however, it is not, because in the case of an unusually high volume of capitalists' consumption – which latter depends only slightly on prices – capitalists will be able to set prices higher than in a case contrary to this one, and hence the volume of consumer goods bought by workers will be diminished.

always given. This is not a datum independent of the volume of consumer goods produced, since total demand is *also* a function of the wages paid in the consumer goods producing sector: a change in its production – other things being equal – changes the sum of spendable wages. It follows that: if producers unable to coordinate their respective volumes of production bring more commodities to the market, and if they also want to sell those commodities, then – other things being equal – they are forced to lower the unit price of their goods relative to their labour costs. But where is the upper limit of such production? Existing producing capacities – and sometimes the labour situation as well – do determine an upper limit. Within this limit the fall in the price level might be stopped by marginal producers being forced out of business and, consequently, contracting supply. Studying, however, individual years, theory has to take into account an uncertainty factor, a band within which the behaviour of producers is not determined by compelling economic facts. Hence, regarding this band, we can only state *ex post:* this happened, full stop.

In real life, however, complete monopoly is a very rare bird, while oligopolistic situations are very common. It is reasonable to assume that on the market of consumer goods oligopolistic behaviour of producers and sellers is significant. And as far as present-day oligopolistic competition is concerned, the commonplace statement saying that competition is practiced, whenever possible, not through prices but through the amount of production, is valid. (This statement holds rather for competition within, and less between, trades.) We would say too little, if we wanted to reformulate this by stating that there is a downward rigidity of prices, as nowadays prices are rising. (The case of computers and similar products is an exception, easy to explain.) Oligopolistic prices are anyway administered prices. On the other hand: if prices are given (other things being equal). the marketable volume of consumer goods is also given. The question arises, however, how producers and sellers enjoying an oligopolistic position calculate and fix their prices. Apparently a significant role is played here by the relationships among the price level of consumer goods, their volume sold and the profit obtainable from these sales.

## 1.7 Prices, sales, profit margins and profit volumes

Péter *Erdős*, in his "Contributions..." and in "Wage, profit, taxation" – assuming "pure" capitalism – arrived at the conclusion that in the case of an unchanged price level and relatively inelastic capitalists' consumption, when wage earners spend exactly the amount of their current income on purchases, the share of marketable products of Department II within GNP can rise only if the price level of these products is reduced. In this case the percentage share of profit realizable from a unit of consumer goods sold will also fall.\*

\*For a concise summary of this theorem see: [2]

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We have to check to what extent the above theorem remains valid under the conditions of contemporary capitalism.

For that purpose we constructed a two-sector model. Sector I produces investment goods, sector II consumer goods and both sectors produce also the raw materials for their own use. The sum of spendable wages comprises besides those paid in these two sectors also government wages and transfers. Wages in sector II belong partly to the variable, partly to the constant costs of production. We assumed that this variable part of wages moves proportionately to the output of consumer goods. (Assuming that, on account of these variable wages, marginal costs rise with increasing production, the validity of the greater part of our conclusions would be even more warranted.) We assumed an unchanged wage level and also no saving by wage earners.

It was not difficult to find the rule in the two extreme cases: first when capitalists' consumption changes proportionately to the volume of consumer goods production and secondly when this type of consumption is completely inelastic. But for intermediate situations we arrived at unmanageable formulas. Thus, instead of producing exact proofs we had to rely on simulation methods. We performed numerous simulative experiments, changing our parameters within broad limits, extending far beyond the limits we assumed to be realistic.\* The results obtained were unequivocal. Namely: the price level of consumer goods decreases parallel to an increase in the volume

\*Our model was constructed in the following way. The number of production workers employed in sector II equals n. For a sum of wages equalling n money units they produce an n volume of consumer goods and the volume of personal consumption is also exactly n. The difference between the total amount of wages (and other wage-type income) paid in the country and wages n paid in sector II is B; total constant costs in sector II is K. The volume of capitalists' consumption  $C_c = f(n) = \alpha n + \beta$  so that  $\alpha n^* + \beta = 0.1 n^*$ , where n\* is the volume of production in sector II regarded as an average one. The independent variable of the system is n, while B, K,  $\alpha$  and  $\beta$  are parameters. We varied the values of these between limits exceeding those regarded as realistic. In this model

the price coefficient of consumer goods  $p_c = \frac{B+n}{n-f(n)}$ ; the price sum of consumer goods =  $n \frac{B+n}{n-f(n)}$ ; their cost of production = K + n;

the amount of profits expressed at current prices =

$$= n \frac{B+n}{n-f(n)} - (K+n) = \frac{f(n) \cdot (n+K) + n \cdot (B-K)}{n-f(n)};$$
  
the profit margin =  $\frac{\text{amount of profits at current prices}}{\text{price sum}} = \frac{f(n) \cdot (n+K) + n(B-K)}{n(B+n)};$ 

the volume of profits is arrived at by deflating the amount of profits with the corresponding  $p_c$  value.

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of consumer goods sold, except when capitalists' consumption is so elastic that with a plus or minus 8 per cent deviation of consumer goods production from its average value capitalists' consumption rises above or falls below the average by about 40 per cent. This being apparently an irrealistic case, it follows that the price level of consumer goods falls (other things being equal) when the production of consumer goods increases and rises (other things being equal) when the production of consumer goods is reduced. With the same qualifications also profit margins fall when the production of consumer goods rises and *vice versa*. This conclusion corresponds to the theorem expressed in the two books mentioned.

On the other hand, it might be regarded as a new and important result that the profit volume (profits expressed at constant prices) increases when the production of consumer goods rises and falls when the latter diminishes.\* The same cannot be said about the amount of profits expressed at *current* prices. If n is the volume of consumer goods sold and if capitalists' consumption changes somewhat more elastically with the changes in n than what would correspond to the function f(n) = 0.8n - 10, then the amount of profits expressed in current prices also changes in the same direction as n. Assuming capitalists' consumption to be less elastic than that, the contrary is true. (A rising price level is coupled with a falling production, hence profits expressed in money terms may increase while the real value of profits diminishes.)

The above outlined model experiment has shown that the *theorems* stated in relation to "pure" capitalism and mentioned above are valid under the conditions of present-day capitalism as well. Meanwhile we also revealed a relationship hitherto unknown to us; that the *volume* of real profits in sector II is growing together with the increase (relative to the GNP) of the volume of consumer goods sold.

\*It is easy to prove this theorem also by exact methods for the very probable case when B-K is greater than zero.

Namely: as the volume of profit equals the quotient of profit in money terms and the price coefficient, the volume of profit

$$=\frac{f(n)\cdot(n+K)+n(B-K)}{n-f(n)}\div\frac{B+n}{n-f(n)}=\frac{f(n)\cdot(n+K)+n(B-K)}{B+n}.$$

The derivative of this expression with respect to n equals:

$$\frac{[(n+K)f'(n) + f(n) + B - K](B+n) - f(n)'(n+K) - n(B-K)}{(B+n)^2}.$$

Here the denominator has a positive value and the numerator can be brought, after having performed the operations indicated, to the following form: f'(n)(B + n)(n + K) + (B - K)[f(n) + B.]. We know that f(n) grows together with n, hence in the relevant domain  $\overline{f'(n)}$  is greater than zero and if B is greater than K all terms in the numerator have a positive value. Accordingly, the theorem is true in the case when the above-mentioned condition holds (but within certain limits it would be true even in the improbable case when B-K is less than zero).

## 1.8 The paradoxical relationship between profit margin and profit volume

From this new theorem it becomes also evident that we indeed face a paradoxical situation. If oligopolistic conditions really prevail in the production (or sale) of consumer goods and, as a consequence, this sector can administer its prices and can adjust its production to the demand determined by prices then a paradoxical situation will arise; if this sector, in order to defend its profit margins, raises prices, its volume of profit will by the same token diminish.

The capitalists of consumer goods producing sector, of course, do not act as one man. And if individual enterprises have a free hand in any respect, then to the extent depending on the degree of their monopolistic position - called by Kalecki the "degree of monopoly"\* - this will show itself in their relative freedom to set their prices. But demand for their products at the prices they set does absolutely not depend on them. Moreover: the theorems stated above hold for the sector as a whole but not for its individual enterprises. The prices of products with inelastic demand can be raised without a significant consecutive drop in sales. Demand for some products might even increase without a drop in the profit margin. It is true especially for the purchase of consumer durables and homes that their sales volume does not depend so much on their market price as on the availability of credits. Anyway: under inflationary conditions there is a considerable pressure to raise prices, since costs, and among them - contrary to the assumptions of our model – also the level of wages rises. Our model, by assuming that both sectors produce their own raw materials, made the problem of increasing raw material costs disappear. This problem, however, is a very real one in individual branches and enterprises. It was an all too real problem especially for those using imported raw materials and energy to a considerable extent. (The type of inflation rightly called a cost-push variety is connected with the like factors.) Hence enterprises do raise their prices. They easily may raise them so much that through such behaviour - and this is the substance of the paradox - they curtail the volume of their profit.

We also have to keep in mind that at the time when entrepreneurs calculate their prices by simply adding the profit margin to the costs, the future level of raw material prices and wages is uncertain, and their total unit costs depend also on the uncertain volume of products they will be able to sell. The calculation of costs itself is based on rather uncertain assumptions.

It is true that previously set prices are also changed under way – while such actions of entrepreneurs are governed partly by changes in costs, partly by the behaviour of

\*Those said here about the Kaleckian "degree of monopoly" are to be taken with a grain of salt. Kalecki applies his notion to microeconomics. He gives a formula for determining the amount by which an enterprise, depending on its "degree of monopoly", will set its prices above its costs. It is namely evident that sensible profit margins are not independent from the state of business. In times of recessions profit margins fall, which does not prove, however, that the enterprises' "degree of monopoly" has also diminished. "Degree of monopoly" seems to be a misnomer.

competitors, partly by the changes in demand. Moreover, during the same train of events there are changes in the government deficit, in wage earners' propensity to save; beside changes in the level of raw material prices and of the wages there will be also changes in the interest rates and/or credit conditions. Everything will change and profits and profit margins will be affected by all this. So much remains solidly true that neither individual capitalists nor producers of consumer goods in their entirety are in a position to adapt themselves - from the point of view of their own interests - optimally to the changing environment, since they cannot even know what would be optimal if everybody acted optimally or if everybody acted as they actually did. In other words: the behaviour of capitalists in forming a price policy or their production decisions contains a lot of unforeseeable, random elements. Thus, for instance, we can explain only ex post the fact that in 1975 capitalists sold 1 per cent more consumer goods than in 1974. Our explanation might include among other factors, as perhaps the most important one, that they wanted to reduce the too high volume of their inventories by every possible means. We can state, however, quite accurately – once again only post hoc – the relative weight of the sales increment or decrement of a given year in the price increase or decrease in that year - if we consider sales as the independent variable.

## 1.9 The p \* formula

The changes in the price level of consumer goods are considerably influenced by changes in government expenditures. In our  $\Delta_{pc}$  diagrams this effect is shown partly – not separated from other factors – by the changes in government wages included in the numerator of the formula under the general heading "wages" and in the – explicitly indicated – changes in government transfers. We can obtain a deeper insight into the effect of the government sector on the price level by expanding the numerator of the  $p_c$  formula so as to also comprise the *price sum* of government purchases of goods and services, and the denominator to comprise also the *volume* of these same purchases. By doing this we go beyond the category of *personal consumption*. The new formula taking into account also government purchases is akin to the  $p_c$  formula, but also differs from it. We shall denote this second one as  $p_c$ \* formula. We arrive at it by the following reasoning.

The volume of total consumption  $(R_v)$  equals the volume of consumer goods<sup>\*</sup> purchased by wage earners, capitalists and government:  $R_v = c_{wv} + c_{cv} + c_{gv}$ .\*\* The price of this volume is composed of the price sum of government purchases:  $c_g$ , the price sum of capitalists' purchases of consumer goods, and the price sum spent by wage earners on consumer goods. This latter one equals the sum of wages paid by business  $(W_b)^{***}$  and by

\*In the volume of "consumer goods" purchased by government we include all goods and services bought by government (from the ink consumed by administrators through school buildings to ICBM-s). We do not include, however, into this category – contrary to official statistics – the compensation of government employees which had been already accounted for in the item "wages".

\*\*In our diagrams instead of cgv we use the symbol GP (Government purchases).

\*\*\*Including business transfers and some minor items.

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government, plus government transfers (trf) less\* direct taxes paid by wage earners  $(T_w)$  and less net savings by wage earners  $(S_w)$ .

If now – giving a simplified image of reality – we assume that the price of a unit of all three components of  $R_v$  is uniformly  $p_c*$ , then the following equation is valid:

$$(c_{wv} + c_{cv} + c_{gv})p_c^* = c_w + c_c + c_g + W_b + W_g + trf - T_w - S_w \dots$$
(1)

On the right-hand side of this equation instead of  $c_c$  we can write  $c_{cv}p_c^*$ , consequently the second term on both sides can be cancelled. It is also true that

$$W_g + trf + def = GE_r + def \dots$$
(2)

where  $GE_r$  stands for the part of government expenditure covered by receipts and def for government deficit.

Hence from (1) and (2):

$$p_{c}^{*} = \frac{W_{b} + GE_{r} + def - T_{w} - S_{w}}{c_{wv} + c_{gv}}.$$

The volume of personal consumption:  $c_v = c_{cv} + c_{wv}$ , hence  $c_{wv} = C_v - c_{cv}$ . Substituting this into the denominator of (3), we arrive at the definitive formula:

$$p_{c}^{*} = \frac{W_{b} + GE_{r} + def - T_{w} - S_{w}}{C_{v} + c_{gv} - c_{cv}}$$

The second series of our diagrams (Chart 1.2) was prepared on the basis of this formula, but remodelled so as to depict the yearly percentage *changes*, i. e. in the form of  $\Delta p_c^*$ . Also here the illustrating diagrams approximate the price level as the difference between the numerator and the denominator while its exact value is given by their quotient.

Anything else we should have to say about the interpretation of these series of diagrams – whether they depict last causes or simply register facts ex post – we have already had said – *mutatis mutandis* – in connection with the  $\Delta p_c$  diagrams.

\*To put it more accurately: we also have to subtract some minor "other" items, since government transfers do not accrue completely to wage earners.

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Chart 1.2

## II. Profit and changes in profit

## 2.1 Profit structure and profit components

Similarly as in the first part of this paper we are going also in this one to present a few series of illustrative diagrams. These will depict the changes in gross, after tax profits (gross, as they include capital consumption allowances) but in a peculiar way, namely by their "components". We used quotation marks as this notion of "profit components" certainly needs explanation. We do not mean by it that profits are "made up" of entrepreneurial gain and interest. But we do know from Kalecki's macro-economic balance sheets that profit equals the sum of investment, capitalists' consumption, export surplus, government deficit and dissaving by wage earners. These are what we will call profit components. To facilitate understanding, on Chart 2.1 we present separately – for the year 1975 – at actual prices a diagram indicating its characteristic points with the letters A-F.

Gross profit, after taxes and its components in 1975 (based on data in current prices excluding imputations)



Let us first have a closer look at the meaning of profit components!

As our data represent quantities expressed in actual prices, profit is the difference between two sums expressed in money terms: capitalist' money receipts and costs, while gross profit is bigger than that by the amount of depreciation charges. If the former one is

net profits, then the components of gross profits are: capital consumption allowance and net profits. We, however, have "cut up" also net profits into its "components".

We face here the following problem. Net profit is simply the difference between the current receipts of capitalists and their costs rendering the acquisition of these receipts possible, hence an amount of money. A part of this amount of money might be present in their hands in money form even at the end of the year.

If we assume a closed economy without foreign economic relations and that the balance of government expenditures and receipts as well as the saving of workers are exactly zero, then no part of net profits could be present at year's end in money form. So much is clear, since in a closed economy somebody's receipt is the expenditure of somebody else – that is, his negative receipt – and thus the algebraic sum of receipts is  $\checkmark$ always zero. Thus, if the receipts of the government and workers equal their respective expenditures, then also capitalists had to spend their incomes completely. In such a case the net profit of capitalists would be equal to the sum of their net fixed investment, the (positive or negative) change in inventories and their consumption. These would be the components of net profit. But these same items are also present when we assume an open economy, when government expenditures exceed government receipts and when workers spend more or less than their income. In this latter case, however, there might remain at year's end a certain amount of money (which may also be negative) in the hands of capitalists which they might hoard in its original form, or use for buying domestic or foreign securities (thus they might also invest it abroad). Whether they do this or that we will call this part of their profit paper profit. In such a sense the components of net profits are: 1) change in inventories; 2) net fixed investment; 3) capitalists' consumption; and 4) paper profit. By adding capital consumption allowances to these, we arrive at gross profits.\* Hence gross profits are the sum of paper profit plus profits in the tangible form of goods and services. (This latter one we shall call material profit.) From among the parts of the latter one gross fixed investment is present in material form. In 1975, however, the total amount of profits present in material form was smaller than gross fixed investment, owing to a decrease in inventories (amounting to AG). The part of profits indicated by the distance CD, that is, capitalists' consumption, was spent by capitalists on consumer goods and services. This part is present neither in money form nor in material form: it does not survive until the end of the year.\*\*

\*Actual data for gross fixed investment are taken from official US statistics (the sum of distances AC + DE in our diagram). The amount of capital consumption allowances (DE) is taken from the same source. If this is higher than the actual physical replacement of fixed capital, than our diagram overestimates net fixed investment by this difference. In neither case does the sum AC + DE include any paper profit, but constitutes entirely a part of profits in material form.

\*\*Once again for the sake of accuracy: it was already mentioned that we regarded the purchase of consumer durables and homes as consumption. They were treated as if they had been also consumed until the end of the year. In reality, however, they were not, they constitute an increase in the personal wealth of people – in this case of capitalists. They also constitute a material part of profits.

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Let us now have a look at the paper profit! Its amount is the algebraic sum of net (positive or negative) exports, the (positive or negative) difference between government receipts and expenditures and the (positive or negative) saving by wage earners. (Statistical discrepancy is also figuring in our diagrams but the existence of such an item is "not a necessity".) This algebraic sum may also be negative: for example in our diagram for the year 1974 such negative amount of paper profit is to be found. Negative paper profit involves that in the given year capitalists are forced to sell securities, to diminish other claims or increase their debts.

Since the profit data illustrated by our diagrams were given at current prices, we cautiously avoided to call the other part of profit, which is not simply paper profit, real profits without quotation marks. Instead we speak about profits in the tangible form of goods and services or, for brevity's sake, about material profits. The AF distances do not depict – even paper profit aside – profit volumes, but their amount expressed in money terms. It is evident, however, that although capitalists are certainly happy when their profits expressed in money terms are increasing, the measure of their real income is real profit. In a certain – essential – sense we can even speak about the real amount of paper profit; namely: by this we may mean the volume of goods which can potentially be bought for it.

It is worth to direct the attention of the reader to the fact that paper profit represents - due to its special character - a part of profits especially sensitive to

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Chart 2.3

inflation. It might remain in cash form, it might as well take the form of different claims, but contrary to profit invested or consumed it is subject – depending on its form – to slower or faster inflationary devaluation. This might be somewhat modified but hardly annulled by dividends or interests received on paper profits taking the form of securities or bank deposits.

Those said above especially justify the presentation here of the volume of profits as well, since the period under review was one of a high rate inflation.

On Charts 2.2 and 2.4 we present our profit diagrams both at current and at constant (1972) dollars. The diagrams on charts 2.3 and 2.5, on the other hand, depict the yearly changes in profits and their components based on current and constant dollar data respectively.



Chart 2.4

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## III. Deficit financing

## 3.1 Paper profit, deficit and investment

It was not by chance that we have dealt to some length with the problem of paper profit. An understanding of the category of paper profit helps us to a deeper understanding of the relationships between business fluctuations and economic growth on the one hand and "Keynesian" fiscal policy on the other hand.

The question arises, in what sense we can characterize the changes in the budget during the period under review as the outcome of economic policy in the strict sense of the word. In principle usually a distinction is made between two types of fiscal policy. One of them is usually called the anticyclical variant, while the other one is labelled growth oriented or that of full employment. The full employment variant - based on the theory of fiscal drag – calls for a budget deficit even under the conditions of improving business. An even more ambitious theory - to-day more or less outmoded - also stresses the necessity and possibility of fine tuning. This is based on the assumption that the government can always elaborate some sophisticated economic policy which would reduce the extent of economic fluctuations to a bare minimum. But, firstly, in the institutional framework of US legislation it is not easy at all to change the system of taxes and budget expenditures. Even the enacting of a tax cut, a measure meeting mostly with general sympathy, may take years. Further, nowadays no one thinks any more that the insight offered by the existing theories would suffice to implement any real fine tuning. Moreover, the implementation of growth oriented policy is also made dependent on the development of inflation. The period studied here was characterized by inflation and, as a consequence, the actual fiscal policy followed during the period as a whole was not consistently one of the growth oriented variant but was during most of the period one of the anticyclical type. But even this was eminently characterized by automatisms built into the budget system. Economic ebbs and tides caused by the Vietnam war – that is, by a factor not economic but above all political - changed the expenditure side of the budget significantly, while the important elements of the budget, for instance such as the tax system, were modified for purely economic motives only exceptionally. Actual fiscal policy was generally passive and instead of active measures it relied mostly on built-in automatisms. On Chart 3.1 we present in 1972 dollars the changes in GNP, profits and its main components.

The chart shows that the direction of changes in GNP was, with the exception of the years 1971 and 1975, contrary to that of government deficit. The existence of the two exceptional years might indicate that in those two years the increase in the deficit. combined with other factors, did really result in an intended increase of GNP. The direction of changes in material profit and deficit was on the other hand in each and every year contrary to each other. Whenever this form of profit increased government deficit always diminished and such a drop has, according to established theory, a restrictive effect. Whenever this form of profit dropped, there was always an increase in the government.



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deficit and such an increase has, according to established theory, a business improving effect. Thus, with the exception of two years, the budget changes worked against the changes in GNP and in each year without exception they worked against the changes in profits. Thus the impact of the budget balance was anticyclical.

Of course, in present-day capitalism the fluctuations of GNP are not very considerable. Those of unemployment or net profit, however, are considerable, and this is the main cause why also a great part of western economists regard the years 1974–75 as real crisis years (even if they did not say so explicitly). We could speak about a really successful anticyclical policy only if economic policy succeeded in keeping the fluctuations of net profit, and prominently that of net investment within narrow limits. In such a case also fluctuations of the government deficit could be kept within narrow limits.

In the years under study, however, net investment and government deficit did not only change in contrary directions but both showed also violent fluctuations. Their contrary movements are eye-catching. Looking at the chart we get the impression that the one of them is an image of the other reflected by a mirror, that is, an image turned upside down. The deficit diminishes or perhaps changes into a surplus exactly when net investment increases, and grows when net investment drops.

It is clear: fiscal policy, although working consistently against the changes in investment, was unable to stop the occurrence of considerable fluctuations in investment. But had it not perhaps still some positive impact on investment?

Let us not jump to conclusions. The possibility that changes in investment follow the changes in fiscal policy with a - relatively regular - lag, stands still open.

We can check this on the basis of Chart 3.1. Maybe we shall find a positive correlation between the prevailing fiscal policy and the volume of investment one year later. Well, from 1968 to 1969 fiscal policy moved towards restriction and from 1969 to 1970 the volume of investment really fell. (We know from elsewhere that monetary policy had an important role in this drop.) On the other hand, from 1969 to 1970 fiscal policy turned expansive and a year later investment was still falling. The former case would indicate a positive while the latter one a negative correlation. In the following years - a clear-cut case of random events - these phenomena are repeated. The budget turned expansive from 1970 to 1971, the volume of investment increased: positive correlation. One year later, from 1971 to 1972, the domestic deficit changed in a restrictive sense and, in spite of this, the volume of investment showed fast growth from 1972 to 1973: negative correlation. Restrictive economic policy in 1973 and a slight drop of investment in 1974. Fiscal policy changed in an expansive sense from 1973 to 1974 and there was a considerable drop of investment from 1974 to 1975. Seemingly positive and negative correlations followed each other alternately, proving that fiscal policy did not have a verifiable enhancing or restricting effect on investment. Of course it follows from the demonstrated improbably regular, alternately identical and contrary, changes that we can find a parallel development with a two-year lag between fiscal policy and investment, but this regularity is in our judgement a random phenomenon, like the identical and contrary movements assuming a one-year lag. We think that it would be



naive to believe that changes in this year's budget could have a direct effect on investment changes taking place two years later.

It is also imaginable that changes in investment reacted on changes in deficit with a lag shorter than one year. In order to check this assumption we also present (on Chart 3.2) the changes of the above variables by quarters, and under their graphs we also present the quarterly *changes* of the same variables (being bigger, smaller, identical or contrary in direction) symbolized by shorter or longer arrows.

But not even through quarterly breakdown could we discover any reliably positive correlation with whatever nearly constant lag between fiscal policy and the volume of investment.

Relying on these findings we dare state our conclusion: during the period reviewed fiscal policy in the United States had no verifiable direct impact on changes in investment. We cannot get rid of the hunch that the following conclusion might be generalized: budget changes increasing or diminishing a deficit or a surplus hardly influence changes in investment – these latter ones being governed by factors quite different from changes in the budget balance. But the trend of changes in profit – cleaned from short-term fluctuations – depends first of all on investment and we do not see any basis for abandoning the basic Marxist theorem that a capitalist economy is motivated by profit. This being true, how could we believe that fiscal policy can ensure a smooth development of the economy?

## 3.2 Deficit-financing, GNP, investment

Indeed, what are the real effects of global changes in the budget over and above the fact that budget deficits improve the liquidity position of enterprises? (Changes in the particular types of budget receipts or expenditures might, of course, have effects worth further investigation.)

The majority of Hungarian economists probably think to know that mature capitalism left alone is stagnation-prone and that this is manifested, among others, by the fact that capitalists do not want to make use of their profits in a positive manner, that is to invest them. The assumed consequence is that idle capital in money form is hoarded and this sum is missing from total demand. Here is - in their opinion - where government steps in: with one hand it takes this money from capitalists in the form of profit taxes and spends it with the other one, creating thereby additional demand and channelling it once again into the blood-stream of the economy. And if even this proves to be not enough, then government spends more than its receipts. It makes use of a deficit or in the slang of the economists it resorts to deficit financing.

Let us now assume that in a given year the export surplus, government deficit and saving by wage earners were exactly zero. Under such conditions paper profit had to be zero as well. Thus in such cases after-tax profits necessarily equal the sum of investment and capitalists' consumption. The existence of the profit tax has no impact on the profit volume, its spending, however, increases the nominal value of profits. It is probable that capitalists had at the beginning of the year some amount of idle money (or - what is almost the same - some fictitious capital) in their hands, accumulated during previous years, but no part of this has been drained by the profit tax. Let us now assume an increase in the deficit to an extent not offset by the simultaneous inrease in the other two items. This will give rise to a positive amount of paper profit. The existence of a government deficit - deficit financing - did increase idle money capital.

For our above statement to be correct, we need not assume that in the given year capitalists' investment or consumption remained unchanged. Whether these two items increased or not in comparison with the previous year, there was an increase in the idle paper profit – the amount of capitalists' idle money capital – and exactly by the amount by which the increment of government deficit was greater than the sum of the possible decrement in the export surplus and the increment of wage earners' saving.

Profit becomes bigger when to a given amount of investment and capitalists' consumption – these two components of material profit – also paper profit is added. This addition leaves the costs incurred by capitalists unchanged. As a consequence, the price sum of GNP has – other things being equal – to become bigger than in the case when paper profit does not exist. A given amount of paper profit involves – other things being equal – a given amount of surplus price sum, that is an increase in the value of GNP. If the volume of GNP remains unchanged, then the profit realizable through the sale of a unit product, that is, the profit margin, will increase. An increasing profit margin, however, would – even under the circumstances of inflation – somewhat enhance the increase of production and hence that of GNP. It would not be *necessarily* followed by an increase of the latter.

For the enhancement to become effective, while there are unutilized capacities, supplementary investment is not *absolutely* necessary. The production of consumer goods can increase even without this. If such an increase takes place it counteracts the price increase which would occur without it: thus, in the last instance, the price level does not necessarily rise (although the total price sum increases). As a result of this the sum of real wages and also to some extent their level will become higher.

It cannot be proven, however, that this enhancing effect would increase production to such an extent that the price level would not rise at all. The experience of the decade under study shows exactly that such an enhancing effect also kindles the fire of inflation – which leads sooner or later to deflationary government economic policy. If this latter fact were not a fact, we could argue that the production enhancing impact of the deficit would bring about – through the accelerator effect – sooner or later an increase in fixed investment. The anticyclical fluctuations of economic policy, however, render dubious whether this effect could be significant. We have seen that for the period under review our doubts in this respect are very well founded.

In the Appendix we present the data underlying Charts 1.1 - 1.2 and 2.2 - 2.5 in tabulated form.

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# APPENDIX

## Table A.1

Yearly changes in the volume and price of personal consumption  $(\Delta p_c)$  (percentages)

Item Year	1969	1970	1971	1972	1973	1974	1975	1976	1977
							1510	1770	17/1
1. Wages, etc.	11.5	8.1	8.1	11.5	13.5	11.5	7.6	13.0	12.8
2. Transfers	1.4	2.7	2.7	1.7	2.2	3.1	4.8	1.8	1.5
3. Less: Workers' saving	5.6	1.2	1.5	5.4	4.4	4.7	0.2	5.2	4.5
4. Less: Workers' taxes	-0.4	3.2	-0.3	-3.2	1.3	2.2	2.9	-3.3	-1.9
5. Numerator	7.7	6.4	9.7	11.0	10.0	7.8	9.2	13.0	11.7
6. Volume of consumption	3.1	1.7	5.4	7.4	4.2	-2.4	0.8	7.7	5.7
7. Less: Volume of non wage earners'									1
consumption	0.2	0.1	0.5	0.5	0.3	-0.1	0.1	0.4	0.5
8. Denominator	2.9	1.7	4.9	6.9	3.9	-2.4	0.7	7.3	5.2
9. $\Delta p_{c} (5-8)$	4.8	4.9	4.8	4.1	6.1	10.1	8.5	5.7	6.5
10. $\Delta p_c$ (5/8)	4.6	4.6	4.6	3.9	5.9	10.4	8.4	5.4	6.2

			(percent	ages)					
Item Year	1969	1970	1971	1972	1973	1974	1975	1976	1977
1. Wages paid by business	7.8	4.7	5.0	7.9	9.9	8.3	4.5	9.5	9.4
2. Government expenditures									
covered by receipts	5.6	0.8	3.3	6.6	5.7	5.7	1.1	7.0	5.8
3. Govt. domestic deficit	-2.9	3.4	1.2	-2.3	-1.5	1.0	6.8	-3.2	-1.4
4. Less: Workers' saving	4.5	1.0	1.2	4.6	3.7	4.0	0.2	4.3	3.8
5. Less: Workers' taxes	-0.3	2.6	-0.3	-2.7	1.1	1.8	2.5	-2.8	-1.6
6. Numerator	6.3	5.3	8.6	.10.3	9.3	9.3	9.7	11.7	11.7
7. Volume of personal consumption	2.5	1.4	4.5	6.2	3.6	-2.1	0.7	6.5	4.9
8. Volume of govt. purchases	-0.9	-1.1	-0.2	0.3	-0.3	0.3	0.4	-0.1	0.6
9. Less: Volume of non wage earners'									
consumption	0.2	0.1	0.4	0.4	0.2	-0.1	0.4	0.4	0.4
10. Denominator	1.5	0.3	3.9	6.1	3.0	-1.7	1.0	6.0	5.1
11. Δp <sup>*</sup> (7–11)	4.8	5.0	4.7	4.1	6.3	11.0	8.7	5.7	6.6
12. $\Delta p_{c}^{*}(7/11)$	4.8	4.9	4.6	3.9	6.1	11.2	8.6	5.3	6.2
				1					

# Yearly changes in the volume and price of personal and government consumption $(\Delta p_c^*)$ (percentages)

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## Gross profit after taxes and its components, 1968-1977 (Billions of dollars, excluding imputations)

Item Year	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
1. Gross profit after taxes	168.6	173.6	175.7	191.9	212.4	239.2	236.6	271.7	303.9	334.6
2. Gross material profit	153.6	170.9	168.1	180.6	204.2	240.7	248.6	231.7	278.1	325.6
3. Gross investment	102.7	116.0	111.0	118.9	138.2	169.3	170.3	146.2	183.6	220.8
4. Capital consumption allowances	60.6	67.4	74.8	81.5	86.8	96.2	112.7	133.9	147.2	160.0
5. Net investment	42.1	48.6	· 36.2	37.4	51.4	73.1	57.6	12.3	36.4	60.8
6. Change in inventories	7.7	9.4	3.8	6.4	9.4	17.9	8.9	-10.7	10.2	15.6
7. Net fixed investment	34.4	39.2	32.4	31.0	42.0	55.2	48.7	23.0	26.2	45.2
8. Capitalists' consumption	50.9	54.9	57.1	61.7	66.0	71.4	78.3	85.5	94.5	104.8
9. Paper profit	15.0	2.7	7.6	11.3	8.2	-1.5	-12.0	40.0	25.8	9.1
10. Net exports	2.3	1.8	3.9	1.6	-3.3	7.1	6.0	20.4	7.4	-11.1
11. Government domestic deficit	2.7	-13.6	6.2	13.9	-1.9	-12.7	-4.3	56.8	25.4	9,9
12. Less: Saving by wage earners	-9.4	-11.2	4.6	2.9	-15.1	-6.7	7.9	29.8	2.8	-15.0
13. Less: Statistical discrepancy	-0.6	-3.3	-2.1	1.3	1.7	2.6	5.8	7.4	4.2	4.7
14. Addendum: Net profit after taxes	108.0	106.2	100.9	110.4	125.6	143.0	123.9	137.8	156.7	174.6
15. Gross fixed investment	t 95.0	106.6	107.2	112.5	128.8	151.4	161.4	156.9	173.4	205.2
16. Net material profit	93.0	103.5	93.3	99.1	117.4	144.5	135.9	97.8	130.9	165.6

## Percentage contributions of individual profit components to the total percentage change in gross profit after taxes, 1969–1977 (Based on current dollar data, excluding imputations)

1. Gross profit after taxes $3.0$ $1.2$ $9.2$ $10.7$ $12.6$ $-1.1$ $14.8$ $11.9$ 2. Gross material profit $10.3$ $-1.6$ $7.1$ $12.3$ $17.2$ $3.3$ $-7.1$ $17.1$ 3. Gross investment $7.9$ $-2.8$ $4.5$ $10.1$ $14.6$ $0.4$ $-10.2$ $13.8$ 4. Capital consumption allowances $4.0$ $4.3$ $3.8$ $2.8$ $4.4$ $6.9$ $9.0$ $4.9$ 5. Net investment $3.9$ $-7.1$ $0.7$ $7.3$ $10.2$ $-6.5$ $-19.2$ $8.9$	1977	1976	1975	1974	1973	1972	1971	1970	1969	em Year	Item
2. Gross material profit $10.3$ $-1.6$ $7.1$ $12.3$ $17.2$ $3.3$ $-7.1$ $17.1$ 3. Gross investment $7.9$ $-2.8$ $4.5$ $10.1$ $14.6$ $0.4$ $-10.2$ $13.8$ 4. Capital consumption allowances $4.0$ $4.3$ $3.8$ $2.8$ $4.4$ $6.9$ $9.0$ $4.9$ 5. Net investment $3.9$ $-7.1$ $0.7$ $7.3$ $10.2$ $-6.5$ $-19.2$ $8.9$	10.1	11.9	14.8	-1.1	12.6	10.7	9.2	1.2	3.0	. Gross profit after taxes	1. (
3. Gross investment 7.9 -2.8 4.5 10.1 14.6 0.4 -10.2 13.8   4. Capital consumption allowances 4.0 4.3 3.8 2.8 4.4 6.9 9.0 4.9   5. Net investment 3.9 -7.1 0.7 7.3 10.2 -6.5 -19.2 8.9	15.6	17.1	-7.1	3.3	17.2	12.3	7.1	-1.6	10.3	. Gross material profit	2. (
4. Capital consumption allowances 4.0 4.3 3.8 2.8 4.4 6.9 9.0 4.9   5. Net investment 3.9 -7.1 0.7 7.3 10.2 -6.5 -19.2 8.9	12.3	13.8	-10.2	0.4	14.6	10.1	4.5	-2.8	7.9	Gross investment	3.
5. Net investment 3.9 -7.1 0.7 7.3 10.2 -6.5 -19.2 8.9	4.2	4.9	9.0	6.9	4.4	2.8	3.8	4.3	4.0	. Capital consumption allowances	4.
5.7 -7.1 0.7 1.5 10.2 0.5 17.2 0.5	8.1	8.9	-19.2	-6.5	10.2	7.3	0.7	-7.1	3.9	. Net investment	5.
6. Change in inventories 1.0 -3.2 1.5 1.6 4.0 -3.8 -8.3 7.7	1.8	7.7	-8.3	-3.8	4.0	1.6	1.5	-3.2	1.0	. Change in inventories	6.
7. Net fixed investment 2.9 -3.9 -0.8 5.7 6.2 -2.7 -10.9 1.2	6.3	1.2	-10.9	-2.7	6.2	5.7	-0.8	-3.9	2.9	Net fixed investment	7.
8. Capitalists' consumption 2.4 1.3 2.6 2.2 2.5 2.9 3.0 3.3	3.4	3.3	3.0	2.9	2.5	2.2	2.6	1.3	2.4	. Capitalists' consumption	8. (
9. Paper profit -7.3 2.8 2.1 -1.6 -4.6 -4.4 22.0 -5.2	-5.5	-5.2	22.0	-4.4	-4.6	-1.6	2.1	2.8	-7.3	. Paper profit	9.1
10. Net exports $-0.3$ 1.2 $-1.3$ $-2.6$ 4.9 $-0.5$ 6.1 $-4.8$	-6.1	-4.8	6.1	-0.5	4.9	-2.6	-1.3	1.2	-0.3	Net exports	10.
11. Government domestic deficit -9.7 11.4 4.4 -8.2 -5.1 3.5 25.8 -11.6	-5.1	-11.6	.25.8	3.5	-5.1	-8.2	4.4	11.4	-9.7	. Government domestic deficit	11.
12. Less: Saving by wage earners -1.1 9.1 -1.0 -9.4 4.0 6.1 9.3 -9.9	-5.9	-9.9	9.3	6.1	4.0	-9.4	-1.0	9.1	-1.1	Less: Saving by wage earners	12.
13. Less: Statistical discrepancy -1.6 0.7 1.9 0.2 0.4 1.3 0.7 -1.2	0.2	-1.2	0.7	1.3	0.4	0.2	1.9	0.7	-1.6	Less: Statistical discrepancy	13.
14. Addendum: Net profit after taxes -1.0 -3.1 5.4 7.9 8.2 -8.0 5.8 7.0	5.9	7.0	5.8	-8.0	8.2	7.9	5.4	-3.1	-1.0	Addendum: Net profit after taxes	14. /
15. Gross fixed investment 6.9 0.4 3.0 8.5 10.6 4.2 -1.9 6.1	10.5	6.1	-1.9	4.2	10.6	8.5	3.0	0.4	6.9	Gross fixed investment	15.
16. Net material profit 6.3 -5.9 3.3 9.5 12.8 -3.6 -16.1 12.2	11.4	12.2	-16.1	-3.6	12.8	9.5	3.3	-5.9	6.3	Net material profit	16.

## Gross profit after taxes and its components, 1968–1977 (Billions of 1972 dollars, excluding imputations)

								1		
Item Year	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
1 Cross profit ofter taxes	200.9	106.9	100.4	109.2	212.4	220 7	204.0	207.0	221 6	220 6
1. Gloss piont after taxes	200.0	190.0	190.4	190.2	212.4	220.7	204.9	207.9	221.0	220.0
2. Gross material profit	182.6	193.7	182.1	186.4	204.2	230.1	215.2	176.4	202.3	222.2
3. Gross investment	123.7	133.7	121.7	123.3	138.2	162.4	148.0	108.9	132.0	148.8
4. Capital consumption allowances	72.6	75.9	80.3	83.8	86.8	91.2	95.8	101.1	104.2	105.6
5. Net investment	51.1	57.8	41.4	39.5	51.4	71.2	52.2	7.8	27.8	43.2
6. Change in inventories	8.7	10.6	4.3	6.6	9.4	16.5	8.0	-9.8	6.7	8.9
7. Net fixed investment	42.4	47.2	37.1	32.9	42.0	54.7	44.2	17.6	21.1	34.3
8. Capitalists' consumption	58.9	60.0	60.4	63.1	66.0	67.7	67.2	67.5	70.3	73.4
9. Paper profit	18.2	3.1	8.3	11.8	8.2	-1.4	-10.3	31.5	19.3	6.4
10. Net exports	2.8	2.1	4.3	1.7	-3.3	6.7	5.2	16.0	5.5	-7.8
11. Government domestic deficit	3.3	-15.7	6.7	14.5	-1.9	-11.9	-3.7	44.7	19.0	6.9
12. Less: Saving by wage earners	-11.4	-12.9	5.0	3.0	-15.1	-6.3	6.8	23.4	2.1	-10.6
13. Less: Statistical discrepancy	-0.7	-3.8	-2.3	1.4	1.7	2.5	5.0	5.8	3.1	3.3
14. Addendum: Net profit after taxes	128.2	120.9	110.1	114.4	125.6	137.5	109.1	106.8	117.4	123.0
15. Gross fixed investment	115.0	123.1	117.4	116.7	128.8	145.9	140.0	118.7	125.3	139.9
16. Net material profit	110.0	117.8	101.8	102.6	117.4	138.9	119.4	75.3	98.1	116.6
	1	1	1		1	1	1	1	1	

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## Percentage contributions of individual profit components to the total percentage change in gross profit after taxes, 1969–1977 (Based on 1972 dollar data, excluding imputations)

Item Year	1969	1970	1971	1972	1973	1974	1975	1976	1977
1. Gross profit after taxes	-2.0	-3.3	4.1	7.2	7.7	-10.4	1.5	6.6	3.2
2. Gross material profit	5.5	-5.9	2.3	9.0	12.2	-6.5	-19.0	12.5	9.0
3. Gross investment	5.0	-6.1	0.8	7.5	11.4	-6.3	-19.1	11.1	7.6
4. Capital consumption allowance	es 1.6	2.2	1.8	1.5	2.1	2.0	2.6	1.5	0.6
5. Net investment	3.4	-8.3	-1.0	6.0	9.3	-8.3	-21.7	9.6	7.0
6. Change in inventories	1.0	-3.2	1.2	1.4	3.3	-3.7	-8.7	7.9	1.0
7. Net fixed investment	2.4	-5.1	-2.2	4.6	6.0	-4.6	-13.0	1.7	6.0
8. Capitalists' consumption	0.6	0.2	1.4	1.5	0.8	-0.2	0.2	1.4	1.4
9. Paper profit	-7.5	2.6	1.8	-1.8	-4.5	-3.9	20.5	-5.9	-5.8
10. Net exports	-0.4	1.1	-1.4	-2.5	4.7	-0.7	5.3	-5.1	-6.0
11. Government domestic deficit	t -9.5	11.4	4.1	-8.3	-4.7	3.6	23.6	-12.4	-5.5
12. Less: Saving by wage earners	-0.8	9.1	-1.1	-9.1	4.1	5.7	8.1	-10.3	-5.7
13. Less: Statistical discrepancy	-1.5	0.8	2.0	0.2	0.4	1.1	0.4	-1.3	-0.1
14. Addendum: Net profit after taxe	s -3.6	-5.5	2.3	5.7	5.6	-12.4	-1.1	5.1	2.6
15. Gross fixed investme	ent 4.0	-2.9	-0.4	6.1	8.1	-2.6	-10.4	3.2	6.6
16. Net material profit	3.9	-8.1	0.5	7.5	10.1	-8.5	-21.6	11.0	8.4
		1	1	1	1	1		1	

#### References

- 1. ERDŐS, P.-MOLNÁR, F.: A method for estimating the income, consumption and savings of social groups. (Based on USA statistics.) Acta Oeconomica (1977). Vol. 19, Nos 3-4, pp. 227-297.
- ERDŐS, P.: A contribution to the criticism of Keynes and Keynesianism. In: SCHWARTZ, J. (ed.): The subtle anatomy of capitalism. Santa Monica, California, 1977. Goodyear Publishing Co. p. 244

## НЕКОТОРЫЕ АСПЕКТЫ ЦЕНООБРАЗОВАНИЯ И ПРИБЫЛИ, А ТАКЖЕ ДЕФИЦИТНОГО ФИНАНСИРОВАНИЯ

(на примере американской экономики)

#### П. ЭРДЕШ – Ф. МОЛЬНАР

В одном из предыдущих номеров журнала (1977 г., том XIX, № 3—4, стр. 277—297) авторы опубликовали свой метод оценки доходов социальных групп, йх потребления и сбережений. В настоящей статье они на основании данных, полученных с помощью этого метода, анализируют состояние некоторых макроэкономических переменных величин в экономике Соединенных Штатов Америки в период 1968—1977 гг. который характеризовался двумя кризисами (одним – относительно слабым, другим – более сильным), имевшими место при наличии упорного инфляционного процесса. Использованные авторами средства: формула уровня цен предментов потребления; расширенный вариант этой же формулы, в которую включены и государственные закупки, а также известные уравнения прибыли Калецкого. Кроме числовых таблиц, авторы на наглядных схемах нового типа показывают формирование инфляции, относительный вес составляющих, а также изменения прибыли и структуры прибыли и относительный вес составляющих прибыли в изменения по годам. Этот анализ одновременно вскрывает определенные пределы регулирования спроса и антициклической экономической политики.



Acta Oeconomica Vol. 23 (1-2), pp. 131-155 (1979)

## É. EHRLICH

## THE MODEL OF JAPAN'S CLOSING UP: TWO-POLE INDUSTRIALIZATION\*

The author examines the natural, social and economic conditions of Japan which, from the last third of the nineteenth century on, allowed it to take over and utilize knowledge and experiences of the given age and also to adjust the domestic conditions of growth accordingly. From this viewpoint she considers the so-called dualistic structure of the Japanese economy to be of decisive importance and, in her opinion, not an impeding factor, but one of the reserves of growth.

## The problem

When making investigations covering 100–200 years and comparing the growth paths of several countries we encounter the fact that some countries are able to start on the way to up-to-date economic growth and industrialization while others are unable to do so under the same external conditions. Similar characteristics and macro-economic relations result in rapid growth in one country, but only in a much slower one in another, etc. When taking such facts into consideration there are at least two approaches to how questions can be raised.

1. One approach looks for the factors which prepared and feeded economic growth in individual countries, thus, on which growth "depends". This approach postulates such a growth model that builds up the growth of the entire national economy from individual factors and tries to separately handle e.g. the role of capital formation and capital utilization, the natural, social, political and economic endowments, the development of education, organizational frameworks of and machinery for technological development, export and import possibilities, etc. not neglecting, of course, existing interrelations, either. These factors really influence the whole process of growth in individual countries, either as driving forces or as impeding factors. At the same time, with such an approach no answer is given to the question why some specific elements of the development of the economy and social life are functioning as driving forces of growth in one country and are not at all or only to a very small extent furthering growth or even impeding it in others.

2. The other approach followed by myself is not built on factors though, of course, it takes them into consideration as well. It starts from the given potential growth possibilities of the given period. It sets out from the facts that the accumulated

\*The article is an English abstract of the book by the author recently published under the title: *Japán: A felzárkózás anatómiája* (Japan: The anatomy of closing up.) Budapest, 1979. Közgazdasági és Jogi Könyvkiadó. 313 p.

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knowledge and experiences of mankind about the organization of the division of labour, technologies, etc. always involve the objective possibility of the acquisition, utilization and further development of these experiences. But, on the other hand, development and growth depend on how the society, economy and people of a country can grasp and rationally utilize these possibilities for economic growth at the level of the given age. *Therefore, this approach interpretes the extent of development or growth of a country as the degree of utilization of potential possibilities.* What has to be examined is why and how country X or Y - in our case Japan – became capable of utilizing potential growth possibilities (the practice and methods of economic growth already developed in other countries for its own purposes in a given period at a certain level).

The problem is not merely how possibilities meet with willingness to adaptation at a given historical moment, since the process of development and growth means in itself a series of manifold changes. *The given possibilities are changing, hence the way of seizing possibilities is not fixed for ever*, either, but is subject to changes from time to time. Besides, conditions of the society and economy of a country for absorbing novel possibilities and for adaptation to them are also changing. Therefore, it has to be examined as well how the relationship between changing potential possibilities and the changing absorptive capacity of the socio-economic medium is developing in this process.

In this approach also the case should be considered as possible when the process of industrialization starts in a relatively backward country which thus becomes a follower country, since it is able to seize (a part of) potential possibilities of growth. But, *if the economy of a country is not continually adapting itself to changing conditions and its structure is conserved* (fitted into previous possibilities), then *this country will* necessarily grow only slowly, maybe only slowly climb higher in the list of countries, and *eventually fully get stuck in its growth and development*.

It has to be taken into consideration as well that certain conditions might prove favourable from the viewpoint of the "stock of possibilities" of a given period, while in another period they might impede the utilization of possibilities changed in the meantime and also adaptation to them.

Big coal resources were an important stimulant of economic growth of the 19th century England, mentioned as "England's gold", while they became a burden for her in the 20th century. It is obvious, that not the stock of coal as such has changed (though in the meantime also extraction sites have changed), but the conditions under which these resources produced unfavourable effects. (It is imaginable that in the new energy situation this effect might be converted into an economic advantage for England again.) The colonies conquered and subjugated had a considerable part in the second half of the 18th and in the 19th centuries in that England could become the "workshop of the world" by means of mass production. However, owing to the development of other countries, this mass production envisaged for the market of the huge empire and the world economy lost from its competitiveness and from a certain viewpoint even the formal maintenance of colonies and of the British Empire turned into an economic burden.

In the context of the second approach we shall try to answer the following questions:

- How far could Japan, located in Asia, grasp the possibilities of the given period and start on the way of industrialization on this basis; which were the natural, social and economic endowments and conditions of Japan that made it capable of taking over and utilizing knowledge and experiences of the given period and of adapting its inner conditions to them?

- Why and how did Japan prove suitable for changing together with the possibilities provided by the given era, forming its inner conditions in such a way as to attain a high degree of utilization of the given and always changing possibilities?

- Which were the accidental factors and circumstances temporarily emerging from time to time that furthered and speeded up Japanese industrialization?

As an introduction to the answer it is indispensable to give a snapshot of the Japanese economy on the eve of industrialization.

## The Japanese economy in the 1870s

The population was 34.8 million (in 1872). The proportion of samurais who played a very important part in the transformation amounted to about 10 per cent of the population (2 million samurai men and 1-1.5 million family members). [1]

The density of population was 91 persons/km<sup>2</sup> (at the beginning of the 1870s), but computed for the actually inhabited area more than four times as much, about 400 persons/km<sup>2</sup>.

Total employment amounted to about 19 million at the end of the 1870s. The activity rate of the population was already very high at that time, i. e. 49 per cent.

86 per cent of those employed worked in agriculture, 0.7 per cent in the building industry, 4.2 per cent in the manufacturing industry, 9.1 per cent in tertiary branches (from this 0.6 per cent in transport and communications, 5.6 per cent in trade and finances, 2.9 per cent in other service branches.)

However, this distribution - as it will be mentioned later on - does not express the real proportions of activities even as regards order of magnitude. Namely, by that time the simultaneous practising of several occupations had already spread in the entire Japanese economy.

In transportation the shipment of goods by coasting, on rivers and canals was dominating. The first railway was built only in 1872.

The proportion of the population living in towns was very high relative to the development level of the economy. In the 1880s 13 per cent of the population lived in settlements with more than 20.000 inhabitants and 9.3 per cent in towns with more than 50.000 inhabitants [St: 2, p.14; St: 3, pp. 16–17].

The distribution of agricultural families by the type of land cultivated by them was the following in the early 1880s: owners -36 per cent, owner-tenants -44 per cent,

tenants -20 per cent. According to estimations, in the 1870s about 30 per cent of the total cultivated area was land on lease. [St:3, p.95;9].

In the early 1870s Japan could be regarded practically as a closed economic unit. Imports and exports amounted to about 4 per cent each of the gross national product. [St: 1; St: 2]. This share of foreign trade in itself is not significant. However, it should be taken into consideration that at that time subsistence farming was characteristic in agriculture, the fundamental sector of the Japanese economy. As a result, only about 1/4or 1/3 of the total gross domestic product could be considered as commodity. In view of this and the given development level of the economy the above-mentioned share of export and import can be considered significant.

Main export goods were: raw silk fabrics, tea and fish, while rice, sugar and cotton in the seed were imported. In the early 1870s 63 per cent of the raw silk and 80 per cent of the tea produced were exported. 41 per cent of total exports consisted of semi-finished products (raw silk also belonging here), 25 per cent were foodstuffs and industrial consumer goods, 23 per cent raw materials, 9 per cent other miscellaneous goods and merely 2 per cent finished products. 45 per cent of all imports were finished products, 29 per cent miscellaneous goods. [St: 2; St: 3; St: 4]. According to estimations 9/10 of Japanese foreign trade were realized through foreign – first of all British – trading agencies at the beginning of the Meiji-regime.\* [1]

The overwhelming majority of state revenues -9/10 – resulted from land taxes. Taxes on agriculture were uniquely high. [St: 2, pp. 136–137]

Living standards were characterized by the fact that in the early 1890s rice consumption, the fundamental source of nourishment of Japanese people, amounted to 134 kg per capita (38 dkg per day).\*\* Over and beyond this, the yearly per capita consumption of barley was 26 kg, of raw barley 22 kg and of other cereals (expressed in flour) 14 kg. At the same time, sugar consumption was 4.7 kg, fish consumption 13.2 kg and meat consumption (calculated for slaughtered animal without poultry) 0.4 kg per capita and year.\*\*\* [1:3]

Of course, these per capita consumption data are average figures including the consumption of former daimios (seigneurs), merchants, etc. as well as that of landless, agricultural wage-workers or rhonins.\*\*\*\*

\*The XVth Shogun of the Tokugawa dynasty was overthrown in 1868. Power was handed over to Emperor Mitsuhito who was 16 years old at that time. With this the more than two and a half centuries' reign of the Tokugawa-dynasty was over and the so-called enlightened revolution (in Japanese: Meiji, and also called Meiji restoration) began which heralded a new era in Japan's history.

\*\*Per capita rice consumption (indicated by a source also for earlier years) amounted in Japan to 102 kg in 1874. [St: 2, p. 344]

\*\*\*Just for the sake of comparison we mention that in 1970 the per capita consumption of cereals (expressed in flour) was 140.2 kg in India and 206 kg in Egypt. Also in 1970 per capita sugar consumption in India amounted to 7 kg.[4, part II, p. 140].

\*\*\*\*The rhonins are those samurais who were dismissed by the daimio – because of this insolvency – and thus remained without work and income.

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Low living standards were accompanied by a high level of education and culture. In the mid-1870s 54 per cent of boys in the age of 6-13 were regularly attending school, while the respective figure for girls was 19 per cent. Considering the entire population illiteracy could be estimated at about 50 per cent. [5] According to statistical data from the 1880s 31 per cent of the population aged 5-14 were enroled in elementary schools or other primary schools; 1 per cent of those age 15-19 in secondary schools and 0.3 per cent of those aged 20-24 in institutions of higher education. [St: 2; 5].

The rate of capital formation was extraordinarily high. Of course, no exact statistical data are avilable to illustrate this, but various estimations indicate that 10 per cent of GNP had already been accumulated at that time.\* [6]

Despite the generally low level of economic development the mortality rate was relatively low. This can be explained not only by permanent and regular washing, developed because of climatic conditions, that increased resistance against various illnesses under the extraordinarily humid climatic conditions, but also by the fact that already in the middle of the 19th century there was a doctor available on each landed property and a medicine cabinet in each household. This was completed by extraordinary cleanliness that had become a folk custom surely in consequence of climatic conditions and dense population and that helped to avoid epidemics which had so often decimated the population of Europe in the Middle Ages. Since in the Tokugawa-era medicines were the only import goods, public health was almost the only field where the achievements of science were applied in Japan simultaneously with the developed world. It cannot be regarded as a chance either, that one of the very first measures taken by the Meiji-regime was the introduction of vaccinations for the masses of population.

To sum up, it may be stated that the level of Japan's economic development on the eve of industrialization was characterized by the factor that the economy ensured the subsistence of a rapidly growing population on low living standards and, in the meantime, also a relatively high accumulation was made possible for starting the process of industrialization.\*\*

\*The 10 per cent rate of accumulation can be evaluated as high with the given economic and technical level of development, considering that the country just started on the way of industrialization. Respective data for England, then the economically most developed country of the world (1860–1870) were 9 per cent, for Denmark (1870–1889) and Italy (1861–1880) 10 per cent, while in the United States representing the highest technological level of that period it exceeded 20 per cent already at that time. [7, pp. 236–238]

\*\*We cannot make a too great numerical mistake if we state the per capita gross national product at about 100-120 dollars expressed in dollars of 1970 international purchasing power measured on the K<sub>V</sub> scale. The economic development level can be measured along various scales. With the method based on physical indicators and relying on the official rates of exchange (short-cut method) the development level is measured along on the K<sub>V</sub> scale. In comparisons made with the method of repricing item by item the so-called K<sub>x</sub> scale is used. With the aid of an appropriately constructed monogram the two kinds of scales can be mutually converted into each other – similarly to the conversion of Fahrenheit and Celsius degrees into each other [8, pp. 96–100]. It should be noted that this dollar value more or less corresponds to the value that could be stated from data traced back with the aid of official index numbers published in the latest historical statistics on this period. [St: 1] (As

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## Conditions and the start

By the middle of the 19th century the Japanese economy based on a relatively extensive division of labour and, accordingly, producing already commodities to a considerable extent (as has already been mentioned, about 25-30 per cent of production might have become commodities) got into sharp conflict with the political and social system.

It was one of the particularities of the division of labour constituting the basis of Japanese commodity production that in its framework not simply village and agriculture, respectively, were linked with town (castle-towns built around the seat of daimios) and industry (handicrafts), but also within villages the system of second and third occupations became relatively wide-spread resulting from the conditions of agricultural production. Accordingly, a part of industrial activities could be found in the villages already at that time. This industrial activity displayed by people engaged mainly in agriculture was meant to meet partly the demands of the village, but partly also those of the town, and to a certain extent it took an "outworker" form organized by merchants.

As another particularity, the duality of the extension of functioning markets may be pointed out. Markets were characteristically restricted to the territory of clans (administrative units) dominated by individual daimios. Besides, there were local markets with lots of special limitations concerning turnover, travel and control. But, on the other hand, the system of sankin kotai (changing presence) constituting a "technical" basis of the power system\* functioned as a force connecting these local markets and developing them into a national system of connections. In the framework of sankin kotai daimios were forced to continuously supply their families living in the capital and their servants with various products, goods and money. Besides, they themselves (together with their attendants) had to visit the capital at regular intervals, thus to stay away from their domicile for a longer period, and to follow an urban way of life in the capital which was excessively swollen in this way. Resulting from all this, in the last period of the Tokugawa-era the national market, together with the organization of the division of labour including the whole country must have been in a relatively advanced stage.

Following from the foregoing, commercial houses having a good grasp of the economic situation and possibilities of the whole country had already existed in that period, to which various kinds of secondary and tertiary activities as e. g. foreign trade, exchange and lending of money, industrial outwork, foundation of manufactures were

against this in an older historical statistical publication [St: 2] the level of Japan's economic development in the period of the Meiji revolution is estimated to be much lower than this – giving data on the national income and taking into consideration that there is an about 20 per cent difference between national income and GNP in favour of the latter on international average.)

\*According to this system each daimio had to spend half a year in the house of Shogun (highest military commandant) in the capital Edo (Tokyo of today) every two years. He was not allowed to take his family with him to his estate. The family had to stay permanently in the capital, in the house of the Shogun. Therefore, the family was a guaranty for the loyalty of daimios as "living pawns".

also attached. Thus, - strictly related to the practice of the economy (production and distribution) - there existed in the Japanese economy (society) a social strata with - if the term may be ventured - a *macro-economic approach* in several respects, wishing to utilize the potential economic possibilities of the country (of course in a capitalist way) and more or less prepared for that. This was also the strata that was able to give a programme to turbulence at a given historical moment, because they were able to become the leading force of a capitalization process.

Nor was the state organization entirely lacking some economic view and practice on national economic level (of course within the strict constraints of Japanese feudalism). Here we do not mean that the Tokugawa-house\* as a central power system developed during centuries had been adequately organized and informed to obtain revenues from the economy; this could be called at most a nationwide fiscal approach. We mean that the "pre-heavy industry" required first of all for ensuring military preparations as well as the skipbuilding industry in the process of development from the middle of the 19th century could exist and develop within the then prevailing social system only as an institutional system belonging to Shogunate\*\*, i. e. as a system of state factories. Therefore the tasks of operation and development had to be carried out in the framework of the Shogunate i. e. in corresponding agencies of the state apparatus.

The Meiji-revolution (1868) was typically started from the top and was practically bloodless. It brought about such changes which could be realized in many respects with the preservation of old features, furthermore, it was not accompanied by an overall crisis of the power system, since it brought about considerable modifications in the relations between individual classes and strata only in the domain above the people. All this was well expressed by the government slogan "Old forms – new contents".

From among the direct consequences of the peaceful character of the revolution made from above two should be pointed out from the aspect of the adaptability and functionability of the capitalizing Japanese economy:

1. the authority of central power, of the state did not decrease, its role even increased;

2. the so-to-say predestined situation of the common working people, its arrangement from above were not challenged.

The state and government of the new power – similarly to the previous central role of the Shogunate – received and carried out fundamental tasks in the development of the economy, in the establishment of the organizational and institutional conditions of economic development, naturally in cooperation with groups of big capitalists – which

\*The Japanese Shogun-dynasty after the commander Tokugawa Ieyasu which ruled for more than 250 years in Japan (1603–1868).

\*\*The direct power environment of Shoguns was the so-called Shogunate of Bakufu. (Originally Bakufu meant the tent of the Shoguns, later the entire government system, the actual military dictatorship.) Henceforth we shall use the denomination Shogunate.

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were strongly concentrated already in early periods -, as if following their intentions. The economic activity of the state was highly diversified. This activity was aimed, among others, at getting acquainted with and introducing Western economic organization as well as techniques and technology, and at a most comprehensive training of people realizing all this. Accordingly, also the leaders of the Meiji-regime dealing with economic issues were almost exclusively such persons who spent a longer time in the West (in the United States or in Europe) or studied abroad with pre-determined tasks. In almost every important field of the economy such systems were taken over from the West which were at that time considered as most advanced and up-to-date and could be most easily adjusted to domestic circumstances. The banking system was developed in frameworks organized by the government on the model of American and European banks, postal services were introduced according to the English system while in education the German system was adapted. Besides, the control and influencing of the process of domestic adaptation of foreign technologies also belonged to the government's scope of activity. This was implemented by means of direct measures concerning the running of state enterprises and through the application of allowances, import- and export-orienting tools. Members of the old ruling class were included and their capital was also mobilized, and financial manoeuvres to promote the former were carried out, etc.

Starting on the way of capitalization took place in respect of the relationship between those in power and the people with the survival of old severe norms of behaviour and constraints on work and under social discipline. "Loyalty" to superiors was not queried (at most superiors were replaced by others), but also the superiors (government, enterprise, "maters" at any time) had some personal, patriarchical responsibility for the fate of subordinates, the employees. The Confucian ideology taken over from the Chinese and the human ideal, respectively, proclaimed by Sintoism based on this ideology (modesty and diligence, sence of responsibility and duty, satisfaction with the personal and social situation, recognition of the superiority of "national" interest) remained practically untouched. The creation of national unity developing in the framework of the new power was promoted by the menace that a possible resistance and connected internal fights could have resulted in the subjugation and colonization of Japan. Later on - rather soon after the stabilization of the Meiji-regime - Japanese national consciousness and the "militant samurai traditions" developed into aggressive nationalism in order to support the expansive colonial endeavours of capitalist Japan, proclaiming the superiority of the Japanese nation and, on this basis, their right to start with territorial conquests and extend their rule over other peoples.

Thus, the Japanese economy that had developed and strengthened already in the womb of feudalism, became mature for capitalist economic development, even though it was restricted by the power system of feudalism. It was suitable – and proved to be so indeed – for the internal utilization of the emerging external possibility (the forced opening by the Americans of the gates of the country in 1853) and for the corresponding adjustment of its existing conditions resulting from inner social and human norms, human ideals and conditions. At the same time the "from above" character of transformation
and its political stability relying on nationalism developed on the grounds of fear from colonization impeded a wider spreading of the economic irrationalities of the revolution. What is more, the new superstructure developed with the preservation of old elements made possible and furthered the enforcement of rationality in both society and the economy and their corresponding functioning as well. As a result, the new Japanese power began its independent economic growth integrating into the world economy without any major social shock. On the other hand, cooperation of the strongly centralized capital with the state fulfilling extensive economic tasks made the beginning of Japanese industrialization, the take-over and transplantation of the achievements of developed countries to some extent well-founded and in certain respects organized.

The rapid start and the realization of possibilities meant, nevertheless, only a basis, but alone they give no explanation for the success of later periods.

# Utilization of possibilities: the model of creative dualism and two-pole industrialization: review and suggestion

In the literature dealing with the development path of the Japanese economy there is hardly any work to be found that would not consider from some viewpoint the dualistic structure of the Japanese economy (and society) as an important element. This particularity is discussed many-sidedly and several resulting phenomena as well as connected consequences are pointed to. In general, distortions, conflicts or difficulties connected with the dualistic structure are emphasized.

In his works dealing with the dualistic character of the economy (including also studies published jointly with H. Rosovsky) prof. K. Ohkawa, one of the best-known Japanese economists and economic historians, emphasizes the contradiction between the existence of the modern sector, on the one hand, and of economic backwardness to be found in the traditional sector of the Japanese economy as well as of "Asian elements", on the other. [10, 11, 12, 13] He points out the gap between modern industrial technology and the traditional institutional systems as well as human behavioural patterns. Of course, the technology taken over from developed countries is of extraordinary importance for the growth of all economically backward countries, he states. However, modern technology can be adapted under such conditions only to a very limited extent, since the absorptive capacities of the modern and the traditional sectors are different as regards technology and, accordingly, also the possibilities of productivity increase are sharply deviating. In the case of Japan, he points out, the long seclusion policy of the Tokugawa-era was especially suitable for the preservation of traditional elements. Japan is an Asian country. "The dualistic growth in Japan is thus coloured by a sharp contrast between indigenous Japanese and Western elements." [13, pp. 4-5]

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Other Japanese authors try to determine consequences for growth theory of the coexistence of the traditional sector and the modern one. In this framework it is a widely raised problem that the present modern theory of economic growth based on West-European and the connected North-American development cannot at all or only to a very limited extent be applied to conditions of developing countries. Furthermore, they say that the premises of this theory do not help - from the practical aspect - to interpret the overcoming of obstacles in the way of the beginning, spreading and stabilization of economic growth, R. Minami [14] unambiguously states: the theory on economic growth provides no orientation as to how the state of take-off or break-through can be reached in the underdeveloped economics. With a certain level of development already attained he admits the Keynes' theory and the neoclassical one are right: the connection between consumption and the investment sector is one of the most important characteristics of economic growth. "In the less developed countries, however, he considers there is a much more important problem of the coexistence of the traditional sector characterized by indigenous technology and therefore low productivity of labour on the one hand and the modern sector with modern technology borrowed from developed countries on the other hand." Minami emphasizes "The study of economic development with such a dual structure has not been a major concern of the theories of economic growth, [14, pp, 4-5]Therefore, the adaptation of the theory on economic growth for less developed countries was not realized vet in the pratice.

Questions connected with the dualistic structure of the economy are dealt with also in contemporary Hungarian economic literature on Japan and the developing countries. In her paper [15] Klára *Biró* discusses several elements of the dualistic structure of Japanese economy in a many-sided way. The work of Tamás Szentes dealing with the problem of backwardness [6], the book of Béla *Kádár* [17] and the study in progress of Anna *Gelei* [18] show from various aspects what terrible shackles are involved for economic growth in the developing countries and in some countries of Latin-America, respectively, by the building up of a "modern" economy separated and isolated from the traditional one. The former one has to spread in a completely alien medium strongly restricting this spreading, furthermore, traditional sectors will be ruined, deformed and dissolved by the modern one pauperizing considerable strata of the population and evoking other serious social conflicts.

Analyzing the chances of the developing countries for development, György *Tolnai* arrives at the importance of moving and linking up the traditional sector - as he calls it, the lower sector. [19]

In this brief survey of the literature dealing with Japan and the developing countries of our days only some important works were referred to. It can be seen even from this one, that as regards dualism stress is laid upon differences and separation. It follows that duality is judged by them essentially as a fact impeding economic growth, consequently the diminishing or elimination of dualism are qualified as factors furthering economic growth.

Tolnai does not discuss at all Japan or its past. In spite of that, in respect of Japan's industrialization path we think his recognition holds – and *in this respect* we agree with him – that in order to join the world process of economic growth and for the lasting maintenance of economic growth from own forces it is of fundamental importance to link up the traditional sector – with Tolnai: the lower sector – with the development of the modern sector.

A well-known and natural endeavour of latecomer countries is to attain the level of economically developed countries. But the existence and development of economically developed countries fundamentally influence the progress of developing countries in this process. As a consequence, the path of their industrialization can no more be made independent from the developed world and from connections established with the developed world in various fields and at different levels. Therefore, in "latecomer" countries one of the indispensable tools for the starting of economic dynamism and its becoming permanent is the knowledge of up-to-date techniques and technology of the economically developed countries (inclusive of the human knowledge necessary to create and operate them) as well as their adoption, running and spreading within the limits determined by various conditions of the individual countries. On the other hand, the introduction of this up-to-date techniques (technology) into a backward social and economic environment will necessarily result in a kind of duality; advanced techniques with corresponding institutional and organizational frameworks and better trained labour force, on the one hand, and traditional ones, on the other. Therefore the transplantation of techniques and technology coming from outside dissolves the uniformity rooted in the underdevelopment (backwardness) of the economy and brings about differences and inequalities.

Therefore, the following fundamental question can be raised: to disparities thus developed impede or rather stimulate economic growth? If modern technology imported from abroad and domestic traditional ones are functioning and reproduced in isolation from each other, i.e. though the application of advanced foreign techniques (technology), the related institutional and organizational frameworks and the labour force capable of running these techniques (technology) are ensured on the one hand, while the prevailing traditional domestic technology, related systems and the old, traditional unskilled labour force are preserved on the other hand, then this disparity will impede the starting, spreading and becoming permanent of economic dynamism (or even paralyze it as several examples show. But, if advanced technology (techniques) creating differences and imported from abroad may spread in the entire economy following the modification of internal conditions and possibilities, then these various inequalities (differences) might act as a driving force stimulating economic dynamism.

Dualism is, therefore, - in our opinion - an unavoidable feature of countries belatedly entering the process of economic growth. The main point in our approach to the issue of economic growth is whether it is separation or correlation that will become characteristic in the regularly developing and asserted dualities.

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# Groups of phenomena and most important outward forms of Japanese dualism

Let us formulate only for ourselves, what we mean by the notion of economic dualism. We mean thereby the complexity of phenomena where in the major phases of economic processes (in the real sphere of the economy) dualities which can be separated (delimited) from each other can be observed in the way of production, in reproducible production factors as well as in consumption and distribution.

In the process of Japanese industrialization economic dualism can be found in almost every "partial element" (labour, capital, production organizations, etc.). The dualities came about at the start of Japanese industrialization and became characteristic in its course in a growing number of fields of the economy. The Japanese dualism reached its most extensive form (we may say culmination) in the period between the two world wars. Some weakening and mitigation in its groups of phenomena and in their characteristic appearance could be felt only in recent years.

American and Japanese economic historians dealing with Japan and researchers of economic growth (W. W. Lockwood, R. Minami, K. Ohkawa, H. Patrick, H. Rosovsky, M. Shinohara, M. S. Tsuru, E. F. Denison, A. Maddison and others) handle economic development, growth and industrialization more or less as synonymous notions. Emphasizing identities with and deviations from historical turning points, they determine different periods of Japanese growth. Their division is changing also according to the problems they deal with: the division into periods will be quite different if they examine the role of the state, the development of agriculture, the labour market or the spreading of education in the Japanese economy. In our work we try to identify and analyze lasting trends and their central motive forces (even if we know, that to identify basic and lasting trends on national economic level and to distinguish them from fluctuations are not easy and often not even unambiguously solvable tasks). The periodic division we set up corresponds to this guiding principle.

The beginning of industrialization can be put at the 1870s and 1880s – similarly to several other researchers; we can speak of the start of "modern economic growth" – using the term of Kuznets – from that time. Therefore, we consider the period beginning with the 1870s and 1880s as that of Japanese industrialization.

We divide the period of Japanese industrialization into two growth stages, namely,

– the first stage of industrialization lasted from the 1880s until World War II (1880–1940) and

- the second stage began in the post-war years following World War II (from 1946-1950 on).

This distinction between the first and second stages of industrialization is justified not only by the deviating growth rates in these two periods, but first of all by the fact that in these two stages circumstances and also several qualitative marks of Japanese economic growth are differing from each other.

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The first stage of industrialization

- took place along with a series of wars of conquest accompanied by all the favourable and unfavourable consequences of wars for economic growth;

- was realized by means of the conquest and occupation of colonies;

- relied only to a small extent on loan-capital of economically developed countries, and utilized mostly domestic capital resources;

- from the viewpoint of technological development this period was characterized by the copying and take-over of the average techniques and technology of economically developed countries.

The second stage of industrialization:

- took place under peaceful circumstances, without war and colonies;

- proceeded of an almost unprecedented rapid growth rate;

- relied on considerable amounts of foreign capital (mostly in the form of aids);

- from the aspect of technological development is a period of the application, spreading and further domestic development of advanced techniques of economically developed countries.

The most important characteristics enumerated above justify the distinction between the two growth stages.

However, even these two stages of Japanese industrialization cannot be regarded uniform in themselves. The first stage of industrialization can be divided into two further phases, the first one lasting from the 1880s until the end of World War I and the second one from the end of World War I until the outbreak of World War II. One of the main reasons for making a distinction between these phases is the deviating rate of productivity increase in the national economy and its major sectors in these phases. The even and rapid growth rate of Japanese economy is the reason why we consider the second stage of industrialization more or less as a homogeneous one.

We tried to summarize in a schema the groups of phenomena and the most important forms of appearance of the Japanese dualism according to this periodical division.

The schema shows well which are

- the most important momentums and groups of phenomena of economic processes showing duality;

- the poles of the two sectors;

- the major features of the poles to be perceived in some period (vertically);

- the most characteristic changes of the poles (horizontally).

The question to be raised is the following: which should be considered as characteristic in the process of industrialization in Japan? The separation of or the links between the modern sector developed on one side and the traditional sector predominant for a long time as regards quantities. In the given context we keep in view industrialization as the basic real process of economic growth of the period examined. Accordingly, with the expression "modern" sector we denote the large-scale mechanical industry, its fields of action and its participants. On the other hand, however, the "traditional" sector

Groups of phenomena	Traditional sectors			Modern sectors			
	Stage I from the 1880s until the outbreak of World War II		Stage II from the late 1940s until the early 1970s	Stage I from the 1880s until the outbreak of World War II		Stage II from the late 1940s until the early 1970s	
	Phase 1: from the 1880s until the end of World War I	Phase 2: from the end of World War I until the outbreak of World War II		Phase 1: from the 1880s until the end of World War I	Phase 2: from the end of World War I until the outbreak of World War II		
Way of the spreading of industry	within the agriculture		through independ- ent organizations	through	independent organizations		
Applied techniques and technology	traditional manual		heterogeneous	more modern mechanical up-to-date and advanced mech		up-to-date and most advanced mechanical	
Forms of work organizations, production organizations	traditional, manual and handicraft forms in the light and artisan industries			up-to-date mechanical, big plants in the light industries			
	mini-pla	ints independent of ag	griculture	large-scale factories, mammoth enterprise		n enterprises	
	in the ligh	nt industry	in the light and heavy industries (engineering)	in the light and heavy industries		stries	

Schema of the groups of phenomena and forms of appearance of economic dualism and their changes in the hundred-year process of Japanese industrialization

Capital intensity and capital consumption	relatively small		medium		relatively great	
Level of earnings	generally low	without qualifica- tions: low <i>in mini plants:</i> lower for women and the younger people	generally increasing	generally low	with qualifications: relatively high <i>in big plants:</i> higher for men and the older people	generally increasing
Domestic and external markets	for domestic personal consumption and for exports		for domestic person- al and productive consumption and for exports	for domestic productive consumption	for domestic pro- ductive consump- tion, military purposes and for exports	for domestic pro- ductive and person- al consumption and for exports
Terms of competition	Competing through liquidation, reorganization		C o m p e ting through li- quidation, re- organization and/or in- d e p e n d e n ce and belonging to a big plant, respectively	C o m p e t i n g mainly through reorganization and/or per- manent re- arrangement within big firms		

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includes not only agriculture, but also the cottage industry especially wide-spread in Japan and fitted into agricultural framework, the urban handicrafts' industry and, finally, the world of mini-plants of small-scale character, often based on family work and developing from the former.

Let us start by giving our short answer to the question raised in the foregoing: the inherited socio-economic structure of Japan was inapt for the isolated development of these two sectors and actually carried in itself potential elements of the interlinked development of both sectors built up on each other. Furthermore, the natural endowments were missing (e. g. raw material extracting possibilities) which could have formed a starting basis for the isolation of the modern sector. *Therefore, already from the very beginning such a specific creative dualism was asserted in Japan* in which not the independent existence of the two sectors and the reproduction of this independent existence, i. e. the increased isolation of the two sectors were prevailing, but on the contrary, their coexistence and symbiosis. We have here, therefore, a model of industrialization where the modern sector (i. e. large-scale mechanical industry) and the traditional sector (and within this especially the industrial activity developed from it) form the two poles of industrialization process linked to each other and strengthening each other.

#### Development of the system of relationships of dualism

One of the basic relationships and in many respects the determinant momentum of the industrialization of latecomer countries, in other words, of the "catching-up industrialization" attached to already more developed national economies are the joining into the international division of labour as well as its contents and limits. The technology required for the industrialization is provided by the already developed countries, while in the country on the way of industrialization . certain export structure is developing and strengthening, in which the import of tec' .ology is compensated by domestic work. The well-known and in the 20th century almost trivially habitual picture is that the developing country begins to participate in world trade relying on its natural endowments and traditional products developed already previously and requiring usually only a low level of production culture. It expands its export potential through developing the production of goods of this type, and over and beyond that a part of the imports needed for industrialization is covered by capital imports (partly through the import of operating capital). As a result of such a development model production necessary for the expansion of exports will be increased precisely in branches representing a low level of "working culture". This will partly preserve the structure of the developing country and the low world market valuation of the labour expended, while the industry just developing will become dependent on the economy of developed countries. As a result of all this the process of industrialization will be burdened by lots of difficulties and contradictory elements, therefore its dynamism will strongly slow down.

When Japan joined the international division of labour, her industrialization was also strongly import oriented and in the beginning also the progress of Japanese industrialization was accompanied by the export of hardly processed agricultural products and goods from the extractive industry (green tea, coal, copper ore and copper block). But this export profile did not last right through the first decades of the process of industrialization, the whole first phase according to our periodical division (1880–1918). It became transformed in a characteristic way, namely so, that adjusted to the specific Japanese conditions agricultural and industrial products requiring relatively sophisticated working methods obtained a fundamental role in exports.

Natural conditions for maintaining and expanding raw material exports were simply missing in Japan. On the other hand, Japan's traditional sector could perform "convertibly" for the world market more than what the export and sales on the world market of simple, unprocessed products of agricultural character required. This knowledge of "more" was rooted in the socio-economic structure inherited by Meiji-regime from the past and hardly affected by the revolution from above. The substance lies in the fact that the manifold activity of the village had developed earlier and the cottage and handicrafts industries producing for urban markets to be found there facilitated the *direct* participation of resource and resource-reserves of the traditional sector in the industrialization process. After all, the direct participation of traditional elements in industrialization was the most significant and spectacular in silk production and silk processing of ever higher standards and, at the same time, it proved to be a basic factor also in joining the international division of labour.

Thus, the industrialization of capitalist Japan was almost at the very beginning an "industrialization with two legs". Advanced industrial techniques were introduced in certain branches of the heavy industry, first of all in those connected with the building up of the military potential. Large-scale mechanical production began also in the light industry, and within it first of all in the textile industry. However, parallel with this also another sector of industrialization began to develop in whose framework silk production and silk processing, carried on first of all by the agricultural population, reached higher and higher standards. Silk as a directly exportable product became a basis for the technology imports of Japan and, besides it provided also basic raw material for the developing mechanical large-scale industry.

But the coexistence of traditional and modern elements is characterized and linked, also through more direct relations. Industrial work displayed as secondary occupation enabled the *rapid spreading of out-work for large-scale industry*. Furthermore, it ensured as well that large-scale industry could rely on *labour resources* mostly corresponding to its requirements. The industry found among the agricultural population diligent and reliable labour almost immediately capable of industrial work. This industrial labour of village origin then further developed the industry within the traditional sector as well as the direct industrial connection between the modern and the traditional sectors. Outwork forms became more perfect, the labour employed in the manufacturing industry of village origin and, then returning to the village became permanent outworkers of some

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major firm of the light industry. Outworkers who performed this work more and more frequently with the means of production received from the factory and according to production technological instructions of the factory. This close and direct connection with the manufacturing industry were, at the same time, also a guaranty that the industry within the traditional sector should not remain at a stable level, but should also change, develop in its own way, and by being continuously connected with the mechanical large-scale industry it should promote the development of continually improving abilities in the use of machines.

It was an important factor in the symbiosis of traditional and modern sectors that they partly relied on each other also in their more indirect market relations. Demands of workers of the developing large-scale industry and of those displaying activities connected with it became elements of ever growing importance of the *domestic market*. And the widening domestic market was supplied not only with agricultural products, but also with a considerable part of industrial goods by the traditional sector, i. e. the industry within the traditional sector. Thus, development of the modern sector stimulated the growth of the traditional one also through the domestic consumer market. On the other hand, however, agricultural and small-scale industrial means of production produced by the large-scale industry and used in the traditional sector, as well as consumer goods produced in the large-scale industry had a widening market resulting from the expansion of the traditional sector, too.

Between the two world wars, in phase 2 of stage I of industrialization the dualistic character of industrial expansion was reproduced at a higher level from a certain aspect, but weakened from another one.

In branches of the *light industry*, first of all in the textile industry phase 2 (1918–1939) was already characterized by the operation and increase of large-scale, up-to-date industrial capacities oriented towards the world market. In the other branches, in light industry based on the agricultural population, beside industry carried on in small family workshops by one family also small plants relying on the work of several families were established, representing already a higher level as regards the degree of mechanization. Outwork forms became more diversified accordingly, and the further complete processing of a part of semi-finished products manufactured in modern factories (e. g. threads, textile fabrics) also developed in specialized plants working in village environment and relying on village labour. Thus the direct production connections between traditional and modern elements a further developed in this respect through the cooperation between large-scale industry and mini-plants not necessarily of family size.

In this second phase of industrialization Japan built up the vertical stages of its heavy industry. The spreading of heavy industry increased in itself the differences of duality (e.g. wages became strongly differentiated, life-time employment developed, more precisely it was spreading in this period.)\* The heavy industry had no direct

\*The first appearance of life-time employment ensuring (so-to-say guaranteeing) the stabilization of the workplace and the activity could be found already during the Tokugawa-reign with merchants.

production relationships with agriculture and the small-scale industry (at most as an extremity). All this slowed down the process of linking the traditional with the modern elements.

There existed *market relations* of macro-economic character and including also growth impulses of course also between the traditional sector and the heavy industry. One of the markets – even if not the most important one – of the Japanese machinebuilding industry in the process of development was provided by agricultural small plants and even more by industrial small plants functioning in agricultural environments. At the same time, the increasing employment in heavy industry widened market demands for consumer goods and this had – in the Japanese structure developed – a considerable suction effect on the traditional and within it on industrial production. Nor is it negligible that import needs for the building up of the heavy industry and later on the demand for raw material imports of the already built up heavy industry increased the demands for export goods and within them for those produced in the traditional sector. (In the last years of this phase the colonization aimed precisely at the ensuring of raw material resources – annexation of Korea, Formosa (Taiwan) and Manchuria –, furthermore the change-over to war economy strongly re-arranged and weakened, respectively, these connections.)

The "two-leg" character of the Japanese industrialization process, together with the two-pole character reached a new quality following World War II, i. e. in the second stage of industrialization according to our division into periods.

The second stage is the period of the completion of the heavy industry retooled for peace production and, we may say, of its world market expansion. In this process firstly the so-called primary heavy industry, then the processing heavy industry became the most dynamic and simultaneously the most extensive parts of the Japanese economy most actively participating in the international division of labour. The spreading of heavy industry and within this of the processing heavy industry did not bring about an atrophy of the traditional sector in Japan, either. The forms and systems of relations previously developed entered a higher stage and now the *traditional* sector obtained an important, occasionally even a fundamental part in the development and high-level performances of several branches of the *processing* heavy industry.

After World War II the renaissance of industry located within the traditional sector did not mean, even formally, a simple repetition of the formula already developed previously. Now the majority of industrial elements within the traditional sector are located no more on the confines of agriculture, nor in the sphere of second and third occupations of the population primarily engaged in agricultural activity. Here the *traditional practice of industry becomes in many respects independent of the main occupation*, and rather it is characteristic that those performing industrial activity as main occupation in traditional frameworks and on the traditional pole display second or third activities of agricultural and service nature.

Japanese industrialization is therefore maintaining and further developing its twopole character also in this stage. In the manufacturing industry a take-over of the

techniques of the "developed West" was realized. This take-over of techniques gradually approached the most advanced ones at any time, and parallel with this simple adaptation, transformation and innovation took place. The particular features of adaptation, transformation and innovation again derive from the interlinked two-pole character of Japanese industrialization. The Japanese industry is adapting, transforming and innovating by building up an operational system of industrial processing and by breaking down the working process into parts and operations in whose framework the elements requiring great manual skills, diligence, accuracy, reliability and ability for adapting techniques can be transferred to the mini-plants. The traditional sector can be found in the form of continuously rearranging village and urban mini-plants together with the rapidly expanding large-scale industry maintaining direct production relations with it. Also research activity has a part of ever growing importance in the adaptation of techniques, and in creating technologies promoting the two-pole Japanese industrial development. One of the specific tasks furthering also the establishment of research centres of applied researches attached to the manufacturing industry is to elaborate technologies and work organization applied to the mini-plants and most efficient from the aspect of their production.

It should be emphasized that mini-plants situated on the traditional pole apply such technologies and carry out such working operations which are, by the very nature of the matter, more manual labour-intensive than those in the large-scale industry. However, their activity does not include merely such work processes which require simply physical strength, skill and diligence. It would not be correct, for example, to identify the manufacturing of transistors in mini-plants raising high technical requirements towards workers or the fulfilment of such tasks where measurements have to be made with instruments and computation formulae have to be applied with the reeling of raw silk, etc. Parallel with the development of the schooling system and education, the sophistication of work (way of work) and industrial techniques reached a new, qualitatively higher level also in the traditional sector in the second stage of industrialization. *This new quality and higher level form one of the basic elements of the rapid growth that characterizes the path of Japanese economy (industry) after World War II.* 

Indirect market relations between the two poles of the industry, between the modern and traditional sectors, promote growth also in the second stage of industrialization. The rapidly modernizing agriculture (requiring machines, fertilizers, irrigation plants, etc.) as well as the mini-plants which are becoming more and more demanding from technical aspects raise growing demands towards branches of the heavy industry manufacturing means of production, and within them working tools, and form a considerable part of their domestic market. On the other hand, the new working tools and procedures developed by the heavy industry for specific Japanese agricultural and mini-plant conditions are one of the key elements of development in the traditional sectors. Furthermore, it is true as well that towards traditional production in agriculture and the light industry manufacturing consumer goods higher market demands are raised in terms of quantity and more and more diversified as regards assortment precisely

resulting from the development of the heavy industry. Finally, it should be taken into consideration that a considerable part of Japanese export expansion – and through this the compensation of the enormous import demands induced by rapid growth – affects the production of mini-plants also directly: namely, a considerable part of export and within it that coming from the processing heavy industry was supplied by the mini-plants.

The interlinked two-pole character of Japanese industrialization may be regarded as a specific driving force of the Japanese industrialization process, to be particularly emphasized. Namely, from the aspect of the progress of the Japanese industrialization process not the contradiction between modern and traditional production and their separation should be pointed out, but the links between these two poles in the growth process and the stimulating impulses stemming from this linkage.

Among the elements promoting and accelerating the progress of Japanese industrialization also external ones can be found which are accidental from the viewpoint of the development of the Japanese economy. Such an accident, by no means to be underestimated, was that the European silk plague caused an excellent boom for the Japanese economy from the last third of the 19th century on. It may be regarded as accidental that the more diversified development of heavy industry in phase 2 was brought about and to some extent prepared by the boom of World War I, that could be well utilized by Japan. It was a chance that following World War II the local wars had an especially strong boosting effect on Japan for geographical reasons; that several trends of world-wide technological development following World War II were very favourable for Japanese possibilities and the qualification and qualities of Japanese labour. But, it is no chance that the Japanese economy could grasp and make good use of these external favourable impulses; how during about one and a half decades the production and processing of silk, the network for collection, sales and export based on village labour were organized to cover almost the whole country according to the intentions of centres of big capital intertwined with the state; or how, for example, several progressive branches of labour-intensive manufacturing were introduced and developed after World War II, enabling the participation also of mini-plants. And, if we survey the seizing of chances we shall also meet stimulating phenomena of the two-pole industrial development and of the linkage between the modern and traditional sectors.

We consider the two-pole character of industrialization and within this the linkage of modern with traditional sector as a basic factor of Japanese growth, because this is the key to the preservation, the extensive (almost full-range) mobilization and utilization of inherited production factors. Through this – and obviously with a considerable multiplier effect – the Japanese economy made almost the total of available man-hours mobilizable. For society (and of course directly for capital) the worktime of village labour not engaged in agriculture because of seasonal fluctuations, a considerable part of the "free" time of workers (labourers) in full-time employment, the labour engaged in households, etc. were utilized with the severity of self-exploitation. Considering the whole course of development, incomplete utilization of labour resources or unemployment appeared only in a few particular and very short periods. Moreover, industrial (and service) activity within

the traditional sector partly made the homes and their related equipments *functioning means* of production, utilized the traditional working tools that could be operated exclusively in family homes as well as machines and equipments sorted out from the modern industry. The resulting capital saving effect and this high-degree utilization of real capital, surely had an important part in that Japanese industrialization could take place without any considerable capital import.

In the two-pole industrialization model of Japan the "traditional" sector promoted not only the extraordinarily wide-range mobilization of production factors. The traditional side was organically linked to development and – so to say – provided one of the main scenes for it, thus basically contributing to the fact that concerning the entirety of economic growth, in the whole process of industrialization the intensive character was predominant. On the one hand, industrial working discipline and culture became rooted also in such strata of workers who had not yet encountered the working requirements of modern industry as workers at large-scale plants. This largely contributed – on the side of the labour base – to the relatively rapid establishment of preconditions for large-scale industry. On the other hand – as it has been pointed out from several aspects – it formed a part of technological progress as well in its specific way.

In the two-pole industrialization of Japan the continuous mobilization of production factors and the raising of their standards were promoted by the micro- and macro-economic as well as the socio-ideological climate basically favourable for growth.

Considering the *micro-economic* interrelations: in the Japanese economy there was a keen *competition* during the whole period of industrialization. Groups of big capitalists were competing with each other – and not only with economic means – and also the situation of family workshops, small- and mini-plants run as enterprises was worked by sharp market competition. Furthermore, competition was evoked among workers by the system of widely divided employment statuses and the related differentiated earnings. This induces not only to properly carry out required daily tasks and given orders, but also promote that the customer or the boss should be generally satisfied with the performance and behaviour, since one can achieve and keep in this way positions (e.g. life-time employment) ensuring considerably higher earnings and much greater safety. This rivalry and market competition sollicited to a considerable extent the flexible behaviour of economic units and individuals striving for saving and adapting themselves to market conditions. Besides, they contributed to the continuous and rapid adaptation to changing conditions and to the re-arrangement of the producing (servicing-trading) organization and, within this, of the interlinked system of big enterprises and mini-plants.

The Japanese economy functioning under the conditions of market economy has almost never been "left to itself" completely, since some kind of *macro-economic arrangement* has continuously been enforced to a greater or lesser extent. This resulted, on the one hand, from traditions, furthermore from the fact that in countries starting their development later the modern state has necessarily had an important part in the development of capitalist industrialization. On the other hand, the Japanese capitalist economy was dominated by strongly concentrated groups of big capitalists already during

the first decades of industrialization which made the cooperation between state and capital easier, better organized and more purposeful already at that time. It may be attributed to this fact that, considering the entire process of industrialization, state intervention has almost always been concentrated on fields of growth of key importance: at the beginning of industrialization on the development of techniques adjusted to Japanese conditions of agricultural production, furthermore on the establishment of modern industry (and military power), finally on the promotion of export production; between the two world wars (also as a change-over to war economy) on the building up of modern heavy industry, and following World War II on the realization of the change-over of heavy industry to civil production.

Finally, we consider it indeed very important that the Japanese ruling class succeeded *in preserving the bond of old traditions in the country* during the entire period of industrialization, namely, obedience to and respect for superiors, etc., thus in avoiding major clashes between classes and the sharpening of the class struggle (apart from some historical moments) even despite a relatively very high rate of exploitation. This was in a considerable part achieved also by means of the well organized and relatively high-level public education inducing great masses of people to accept Japanese nationalism and expansionist goals. But, we think, it would be too one-sided to refer only to this. It must be added that in the framework of the two-pole industrialization *there was no considerable layer of the Japanese society that would have been left out of the relatively rapid growth* and thus did not feel in some way the attraction and advantages of economic growth. We think that over and beyond the preservation of the traditional element, the "bonds of traditions" this was the objective basis that made the realization of Japanese industrialization possible relatively free from major social conflicts.

In recent years of the second stage of industrialization after 1970, traditional and modern elements have more and more approached to each other and a process has started whereby large-scale industry does not simply integrate traditional elements, but, as a matter of fact, includes and amalgamates them. However, this stage of the process already surpasses the limits of the present study. It supplies already contemporary elements of the history of post-industrialization development and growth of the Japanese economy.

#### References

- 1. ALLEN, G. C.: A short economic history of modern Japan 1867-1937. London, 1946. George Allen and Unwin Ltd.
- 2. The industrial policy of Japan. Paris, 1972. OECD
- 3. ORCHARD, J. E .: Japan's economic position. New York, 1930. McGraw-Hill Book Company.
- 4. EHRLICH, É. et al.: Fejlettségi szintek, arányok, szerkezetek (Development levels, shares, structures) Vol. I-II. Budapest, 1977. Országos Tervhivatal Tervgazdasági Intézete. (Manuscript.)

## É. EHRLICH: JAPAN'S CLOSING UP

- 5. DORE, R. P.: Education in Tokugawa Japan. London, 1965. Routledge and Kegan Paul.
- 6. ROSOVSKY, H.: Capital formation in Japan 1868-1940. The Free Press of Glencoe. 1961 and 1972.
- 7. KUZNETS, S.: Modern economic growth. Rate, structure and spread. New Haven and London, 1966. Yale University Press.
- 8. EHRLICH, É. PÁRTOS, GY.: A fejlettség inhomogenitása. (Inhomogeneity of development.) Gazdaság, 1979. Nos 2 and 3
- 9. OGURA, T.: Agricultural development in modern Japan. 1966. Fuji Publishing Co. Ltd.
- 10. LOCKWOOD, W. W.: The economic development of Japan. Growth and structural change 1868-1938. New Yersey, 1954. Princeton University Press.
- 11. OHKAWA, K. ROSOVSKY, H.: Postwar Japanese growth in historical perspective: a second look. The Institute of Economic Research. Hitotsubashi University. Tokyo, 1968. Reprint series.
- 12. OHKAWA, K. ROSOVSKY, H.: Japanese economic growth: trend acceleration in the twentieth century. Stanford University Press. 1973.
- 13. OHKAWA, K.: Differential structure and agriculture. Essays on dualistic growth. Economic Research Series. 13. Tokyo, 1972. The Institute of Economic Research. Hitotsubashi University.
- 14. MINAMI, R.: *The turning point of economic development. Japan's experience.* Economic Research Series. 14. Tokyo, 1973. The Institute of Economic Research. Hitotsubashi University.
- 15. BIRÓ, K.: Japán a II. világháború után (Japan after World War II.) Budapest, 1967. Közgazdasági és Jogi Könyvkiadó.
- SZENTES, T.: The political economy of underdevelopment. 3rd ed. Budapest, 1976. Akadémiai Kiadó.
- 17. KÁDÁR, B.: Latin-Amerika gazdasági dilemmái (Economic dilemmas of Latin-America.) Budapest, 1977. Közgazdasági és Jogi Könyvkiadó.
- 18. GELEI, A.: Tanulmány az Andok-csoport gazdasági helyzetéről. (Study on the economic situation of the Andean-group.) Budapest, 1978. MTA Közgazdaságtudományi Intézet. (Manuscript.)
- 19. TOLNAI, GY: A fejlődő országok gazdasága ma és holnap. (Economy of developing countries to-day and to-morrow.) Budapest, 1975. Közgazdasági és Jogi Könyvkiadó.

#### STATISTICAL SOURCES

- St: 1 Estimates of long-term economic statistics of Japan since 1868. 1. National income. Institute of Economic Research. Hitotsubashi University, 1974.
- St: 2 Hundred years statistics of the Japanese economy. Statistics Department. The Bank of Japan. 1966.
- St: 3 Japan statistical yearbook. Bureau of Statistics. Office of the Prime Minister. 1975.
- St: 4 Statistical handbook of Japan. Bureau of Statistics. Office of the Prime Minister. 1975.
- St: 5 Statistical handbook of Japan. Bureau of Statistics. Office of the Prime Minister. 1976.

#### МОДЕЛЬ ЭКОНОМИЧЕСКОГО ПОДЪЕМА ЯПОНИИ: ДВУХПОЛЮСНАЯ ИНДУСТРИАЛИЗАЦИЯ

#### Е. ЭРЛИХ

При сравнительных исследованиях путей экономического роста разных стран мы сталкиваемся с тем фактом, что отдельные страны способны встать на путь современного экономического роста, индустриализации, а другие — при тех же внешних условиях — оказываются неспособными к этому; что различные особенности, макроэкономические пропорции в отдельных странах вызывают

быстрый рост, а в других – гораздо более медленное развитие. При оценке таких факторов, по мнению автора, возможны, по крайней мере, два подхода, две постановки вопроса.

При одном подходе берутся те факторы, от которых зависит экономический рост. Другой подход, которого придерживается автор, исходит не из факторов. Этот подход исходит из данных потенциальных возможностей роста данной исторической эпохи. В таком толковании экономический рост зависит от того, насколько общество, экономика, население отдельной страны способны достичь возможности, заключающиеся в уровне развития данной эпохи, и рационально использовать их в интересах экономического роста. Этот подход анализирует степень развития, роста отдельных стран как степень использования потенциальных возможностей.

Автор анализирует в таком плане три следующих вопроса:

1. Насколько Япония, расположенная в Азии страна, способна была использовать возможности данного периода, насколько располагала она теми природными, социальными и экономическими данными, а также условиями, которые обеспечили ей возможность перенять и использовать знания, опыт данной эпохи, приспособить к ним свои внутренние возможности. В этой связи автор бегло рисует состояние японской экономики 100 лет тому назад, ее особенности, основные черты начала ее развития.

2. Почему и как Япония продемонстрировала свою способность изменяться вместе с возможностями, предоставленными данной эпохой, как смогли ее внутренние возможности сложиться так, что она смогла эффективно использовать имеющиеся условия? В этом процессе автор считает самым важным то, что с самого начала индустриализации Японии действовал своеобразный творческий дуализм, в котором доминировало не независимое друг от друга существование традиционного и современного сектора, воспроизводство этого независимого существования и усиление разобщенности этих двух секторов, а, наоборот, их сосуществование, симбиоз. Рисуя развитие системы связей японского дуализма на протяжении века, автор подчеркивает, что в этой осуществленной модели т. н. двухполюсной индустриализации два сектора, будучи связанными друг с другом и усиливая друг друга, создали два полюса процесса индустриализации и одновременно своеобразную и одну из самых существенных ее движущих сил.

3. В заключение автор рассматривает различные временно действующие и случайные факторы, условия, способствовавшие, облегчавшие процесс индустриализации Японии.



Acta Oeconomica Vol. 23 (1-2), pp. 157-191 (1979)

## G. HIDASI

# CHINA'S ECONOMY IN THE LATE 1970s AND ITS DEVELOPMENT PROSPECTS UP TO THE MID-1980s

Relying upon the latest Chinese statistical data available, the study provides an analysis of the performance of the Chinese economy in 1978, its development level and structural proportions. With the aid of complementary computations it states the growth rate attained in the 1970s in the most important fields of the Chinese economy and compares it with the growth rates of earlier periods. The author ends his study by forecasting the development prospects of the Chinese economy up to 1985.

It was after a pause of nineteen years, on the 27th June 1979 that the State Statistical Bureau of the People's Republic of China published an official statement on the fulfilment of the national economic plan of the preceding year. [1] Next, the Chinese press published in full the report of Yu Qiuli, Deputy Prime Minister and Chairman of the State Planning Commission on the draft of the 1979 national economic plan, given at the June 21st 1979 meeting of the 2nd session of the 5th National People's Congress [2], as well as Minister of Finance Zhang Jingfu's report on the fulfilment of the 1978 state budget and on the draft of the 1979 state budget at the same meeting. [3] Thus the almost twenty-year period of "estimations" of the situation of the Chinese economy and its actual production capacities has at last ended. The data that have now been published do not allow – because of the limited extent and the character of the yearly plan report - to carry out detailed analyses covering each field of economic activities, and particularly not to reconstruct in full the actual course of economic development over the past twenty years. Nevertheless, conditions are now much more favourable for an investigation of the current situation and of the medium-term development prospects of the Chinese economy than they were at the time of the author's earlier enterprises of similar nature. [4, 5]

In the present study, relying upon the available official Chinese statistics, I shall give *first*, a detailed survey of the achievements and development level of the Chinese economy in 1978, pointing out at the same time the still existing grave disproportions and tensions. *Second*: I shall try to ascertain the growth rates of the 1970s attained in the two fundamental production sectors of the national economy, and in the production of national income, and to compare them with those in earlier periods. All that will be done in order to be able to select from the extremely uneven development process of thirty years, troubled by too frequently changing periods, those shorter or longer phases whose

development trends may be considered as the most probable ones in prognosticating economic growth and structural changes in the next five or six years. *Third*: starting from the experience gathered so far on the development of the Chinese economy, and weighing external and internal, as well as objective and subjective factors and potentials with a bearing on economic growth, I shall try to prognosticate the growth of capacity of the basic production sectors of the national economy, whose attainment seems to be the most likely and upon whose basis the general development level and main structural proportions of the Chinese economy expectable by 1985 can be easily determined.

## Output and development level of the Chinese economy in 1978

1978 was the first and decisively important year for the fulfilment of the programme directed at the creation of the "great order" announced at the 11th Congress of the Chinese Communist Party convened in August 1977. In that year the basic economic objective was, similarly to that in the previous year, to remedy damages caused by the so-called "gang of four", to restore the order and discipline of production, and to attain, as soon as possible, the earlier achieved production level and efficiency indicators. That objective was achieved only partially in the course of the year. *Hua Guofeng*, Prime Minister and Chairman of the Chinese Communist Party, was obliged to announce at the 2nd session of the 5th National Peoples's Congress held in June 1979 that the "readjustment, restructuring, consolidation and improvement" of the national economy will last three years, the current year included, that is, they will reach into the 5th Five-Year Plan period of 1981–1985.

The published statistical data prove that the economy of China developed dynamically and much more evenly in 1978 than it had in earlier years, which is attributable in the first place to the excellent crop results of agriculture in spite of natural disasters. The total gross value of industrial and agricultural production amounted to Y569 thousand million, that is, it rose by 12.3 per cent over the level of the preceding year. Within this value that of industrial gross output was Y423.1 thousand million, and that of agricultural output Y145.9 thousand million, which corresponds to a ratio of 75.4 : 24.6 within the combined value of the two main sectors of production. The growth in value of industrial output reached 13.5 per cent in 1978, and that of agriculture 8.9 per cent. (Such growth in value has never occurred with Chinese agriculture in the 1970s.) National income grew by 12 per cent, a considerable increase over the 8 per cent growth of the previous year, i. e. 1977. Investment activities, goods transport, and the volume of trade grew at even faster rates.

The results of *industrial production* achieved in 1978 are satisfactory from the quantity point of view. In 1978 the output of a number of important industrial articles exceeded considerably the highest production levels of earlier years and with a few products it reached a magnitude which ranks high even on the world scale. At this place

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we shall mention just a few of these: in 1978, 618 million tons of hard coal, 104.1 million tons of crude oil, 256.6 thousand million kilowatt-hours of electric energy, 31.8 million tons of steel, 65.2 million tons of cement, and 11 thousand million metres of cotton fabrics were produced in the People's Republic of China. Taking into consideration that, according to the official data published in the plan report, the population of the country was 958 millions in 1978 (with the population of Taiwan deducted), the per capita quantities of the products in question are as follows: 645 kg of hard coal, 109 kg of crude oil, 268 kilowatt-hours of electric energy, 33 kg of steel, 68 kg of cement, 11.5 metres of cotton fabrics. Although the production of sugar factories rose by almost 25 per cent in 1978, the 2.3 million tons of output allow but an average yearly consumption of 2.4 kg of sugar per inhabitant.

This comparatively fast quantitative development notwithstanding, a considerable lag exists in the quality and efficiency indicators of industrial production. According to Prime Minister Hua Guofeng's parliamentary speech of June, 43 or 55 per cent of the most important industrial products turned out by centrally controlled firms of key importance could not yet reach the level of quality parametres and specific (per unit) material consumption norms achieved by these firms in 1965–1966, and that still counts as a record in Chinese industry. Therefore, in the current three-year period of "readjustment", the primary task of industry is – beside eliminating existing disproportions and tensions – to improve the quality of production and to increase its efficiency. This intention is clearly reflected in the moderate growth targets for industrial production laid down in the national economic plan of 1979.

Among the above listed production volumes it was only the level of electricity production that caused a real surprise to the foreign specialists interested in the development of the Chinese industry. Namely, they estimated - including the author of the present article – the volume of electric energy production of the People's Republic of China at 145-155 thousand million kilowatt-hours for 1978 and prognosticated, accordingly, the attainment of the volume of 300 thousand million kilowatt-hours only for 1985, which can be thus set now as a realistic objective already for 1980. This difference of over 100 thousand million kilowatt-hours, that is of 65-78 per cent, must come mainly from an underestimation of the actual generating capacity of minor hidroand thermal power stations and village electricity works built at local initiative and basically from local resources (in many cases with locally produced generators). And it was further supported by the comparatively frequent Chinese declarations indicating tensions and shortages in fuel and energy supply in the recent past, because of which the number of shifts had to be reduced, and at some places production had to be stopped fully for some days and even weeks in a number of energy-intensive sectors and firms. The fact is that, similarly to coal,\* at most 60 per cent of the electric energy produced

\*Report of Yu Qiuli, Deputy Prime Minister and Chairman of the State Planing Commission, on the draft of the national economic plan of 1979 we can read the following: "For the present year we plan to produce 106 million tons of crude oil, 1.9 per cent more than last year, and 620 million tons

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can be centrally distributed and consumed in the industrial districts, that is, approximately the quantity estimated by foreign specialists as the entire electric energy production of China.

The Statistical Office did not publish data on industrial employment. It only recorded that at the end of 1978 the total number of workers (manual and non-manual staff) was 95 million (3.9 million more than a year before), and that out of these 74.5 million (78.4 per cent) worked in state firms, and 20.5 million (21.6 per cent) in collectively owned smaller industrial cooperative firms of towns. It has been learnt, however, from a recently published newspaper article, that in 1978 over 40 per cent of manual and non-manual staff, that is about 40 million people, worked in industry. [8] This number does not contain the peasant-workers (manual and non-manual staff) employed in industrial enterprises at the commune (or production brigade) levels, whose number may be estimated, relying upon earlier information, at 28 million at least for the end of 1978.\* Accordingly, at the end of the last year about 68 million people must have been engaged in China in Industrial activity, that is, 16 per cent of the 400 million manpower. Out of this 68 million people 33 million (48.5 per cent) worked in the national sector, 6.8 million (10.0 per cent) in the smaller industrial and handicrafts cooperatives of towns, and the remaining 28.2 million (41.5 per cent) in the village communal industry. [12] If we consider that there are manufactories in no small number among the industrial enterprises of the national sector as well, the larger part of those employed in industry, that is about 43 million people, may be assumed to be still working in the production units of Chinese industry using traditional methods and technologies. Thus the number of those employed in modern large-scale industry could be at most 25 million at the end of 1978. Since we have today data and estimations – to be considered as official – on the shares of the value of gross output of state and cooperative firms - and from the latter on those of urban handicrafts industry and village communal

of coal, which is about the same as last year. From the latter the quantity to be centrally distributed will be 354-366 million tons, which is 3.5-7 per cent more than last year. Upon this basis we envisage to produce 275 thousand million kilowatt-hours of electric energy, or 7.2 per cent more than last year. In order to ease the pressure on fuel and energy supply, and to release fuel and energy for the light industry we plan a steel production only of 32 million tons also for this year. In the development of ferrous metallurgy stress will be laid on the improvement of quality and on widening the narrow range of products." [7]

<sup>\*</sup>At the end of 1977, in the village districts of China nearly 1.4 million industrial enterprises or units were functioning, whose gross output amounted to 39.1 thousand million yuans. [9] This was 10.5 per cent of the total gross industrial output of 1977. According to an earlier information, at the beginning of 1977 only 1.1 million of such enterprises were functioning, with a total of 17 million employees. [10] Accordingly, 15 is the approximate number of employees per establishment, that is, with 1.4 million establishments, total employment must have been about 21 million. According to a recent publication, the number of peasants employed in the industrial workshops of the communes exceeded in 1978 28 millions. [11]

#### Table 1

	Employment		Value of gross output		Gross output per worker	
	million persons	%	thousand mill. yuan	%	yuan	
Industry – total	68	100.0	423	100.0	6,200	
Of which:						
State enterprises	33	48.5	333	78.7	10,000	
- modern large- scale industry	25	36.7	280	66.2	11,200	
- manufactories	8	11.8	53	12.5	6,600	
Cooperative enterprises	35	51.5	90	21.3	2,600	
<ul> <li>urban handicrafts industry</li> </ul>	7	10.0	44	10.4	6,300	
– village communal industry	28	41.5	46	10.9	1,600	
				1		

### Average gross value of output per head in the different sectors of the Chinese industry in 1978

industry – in the total value of industrial output of the country,\* I have made computations, relying upon the division of workers as described above, with a view to stating the approximate magnitude of the per capita gross output in the different sectors of the Chinese industry. The results of these computations are summarized in *Table 1.\*\** 

If we examine together the three sectors of the Chinese industry which are working with traditional production methods and technologies (manufactory industry, urban handicrafts industry, village communal industry), on an average approximately Y3,300 of gross value of output falls on each of the 43 million workers employed there. That is, the difference in productivity between the modern and traditional production shows upon the basis of this indicator a ratio of 3.4 :1 in 1978. This is in fact a favourable ratio if we

\*"At present one-third of all manual and non-manual workers of the country are employed in collectively owned firms, and the gross output of these firms amounts to one-fifth of the total gross industrial output" [13]. "The share of the gross output of the handicrafts industry in the total gross industrial output of the country exceeds 10 per cent." "In the handicrafts organization a total of 6.8 million workers are employed." [14]

\*\*In dividing the firms of the state sector into modern industry and manufactory industry I relied upon estimations as regards both the number of workers and the value of output.

take into consideration the much higher investment and operation costs incurred by the foundation of modern industrial production capacities, let alone the outstanding role of traditional industry in solving the increasingly difficult problems of unemployment.

After three years of practically unchanged crop results, agricultural production succeeded in achieving excellent results in 1978, in spite of the fact that up to the middle of the year unfavourable weather conditions and natural disasters had been reported from several provinces. The greatest surprise was caused by cereal crops still considered the most important in feeding the population. At the end of 1978 newspapers still reported that the volume of cereal crops rose - upon the basis of the first investigations - by about 10 million tons above the 285 million tons of the previous year, thus reaching 295 million tons. [15] At the same time it was mentioned that the yearly plan of cereal production could not be fulfilled. Six months later it was read in the report published by the Statistical Office that cereal crops rose by 22 million tons in 1978 and thus amounted to 304.75 million tons against the 282.75 million tons of 1977, approaching the level set in the yearly plan. According to the earlier accounting method this corresponds to about 290 million tons, since the volume of sova-beans recently included into the total of cereal crops was about 15 million tons. Accordingly, the yearly quantity of cereals per head was - with soya-beans and without them - the following: 300 kg and 285 kg in 1977, and 318 kg and 303 kg in 1978, which meant the attainment of the 1955 level in 1977, i.e. an approximation of the record level of twenty years ago.\*

The report does not publish data on the composition of cereal crops. We have thus but indirect information about the quantity of cereals used for human food.\*\* Accordingly, the families of town workers can buy a monthly average of 14–16 kg of cereals (rice, millet seed, kaoliang, sometimes batata), grist or various cereal products (wheat and corn flour, and farinaceous products) for each of their members. Since cereals have a 70 per cent share in the calory consumption of Chinese people and with tuber crops (batata, potato, manioca) added, this share rises to 80 per cent, the daily calory consumption of this group of the urban population must be about 2100–2300 calories per head. In order to maintain this level of food supply to the urban population of 120 million, more than 7 million tons of cereals (wheat, corn, soya-beans) it has been necessary to import annually in recent years. The supply of food – mainly of cereals – to the appr. 840 million people living in village settlements causes an even graver problem. Deputy Prime Minister Li Xiannian was obliged to admit at a press conference held in June 1979 that "some 10 per cent of China's 960 million people do not have enough to eat." [18]

\*This fact was acknowledged also by Chinese economists. The renowned Chinese economist Hu Qiaomu, President of the Chinese Academy of Social Science, wrote the following in one of his articles in the autumn of 1978: "In 1977 the per capita quantity of cereals corresponded to the level of 1955. [16]

\*\*In a recently published article the yearly quantity of per capita cereal consumption has been estimated at 200 kg. [17]

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Under-nourishment is characteristic mainly of certain country districts of China, in which food rations contain but the two most important basic foodstuffs (cereals, cooking-oil), and their size is often much below the supply level of towns, depending on the crop results of the given district. Although, according to the data of the report, the pig population exceeded 300 million at the end of the last year, the yearly meat consumption per head amounted, according to a recently published article, only to 3.5 kg on a national scale. [19] Nearly the double of this quantity is provided for urban workers in their monthly 0.5 kg meat ration. Egg consumption is even less than that, while the consumption of milk and dairy-produce is almost totally unknown in China. Therefore, animal protein consumption consists mainly of pork, poultry, fish and other fishery products. In recent times food supply has become uncertain also in a few big cities, partly because of unemployed family members, and partly because of the growing number of young people who returned illegally from the countryside – the latter cannot even get ration cards in the cities.\*

According to the data of the report, in the course of 1978 the agrotechnical and machine supply of Chinese agriculture improved considerably. The number of large and medium-size tractors grew by 90 thousand, and that of hand-operated small (garden) tractors by 280 thousand. Thus, at the end of the year the stock of agricultural power machines was 557 thousand pieces in the large and medium-size category, and 1370 thousand in the category of small tractors. On a yearly average, about 70 per cent of that stock was in working condition. Since the data on the stock of tractors was given this time in actual pieces and not converted into 15-horse-power units, I could not work out - with a view to international comparison - the statistical average of machine hauling power per hectare. This would have had, however, only a theoretical meaning, since, according to several articles, in most of the farms large and medium-size tractors are used primarily for hauling, and transporting, and only in a small part for fieldwork. This is explained - beside a number of other factors (such as special soil conditions, flooded lands, the lack of attachable machines, etc.) - obviously by the relative overpopulation in agriculture. In 1949 0.2 hectares of arable land fell to one inhabitant and 0.5 hectares to each active agricultural worker, and by 1978 these figures fell to 0.1 and 0.3 hectares, respectively. Of the approximately 100 million hectares of arable land of the country almost 47 million are today irrigable. Beside the traditional gravitational irrigation systems also pump irrigation is spreading in our days. The total capacity of pumping systems was 66 million HP at the end of 1978, that is, 10 per cent more than a year before. The average quantity of fertilizers used on one hectare of arable land approached - in terms of effective substance - 90 kg that is, it exceeded the level of the preceding year by 25 kg.

\*The number of those looking for employment in towns were estimated at 20 million by Chinese authorities, and the number of young people sent out to villages – who later escaped from there – at a further 6-8 million.

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As regards agricultural production it is finally the Y145.9 thousand million of gross output in 1978 that requires analysis and explanation in some detail, the more so as it is over 50 per cent higher than the aggregate value indicator of Y95 thousand million which I had worked out earlier. The problem does not lie really in the large difference, but rather in the fact that we have no other information about this value than its sheer size. We do not know, for instance, whether it is a sum of values computed at current or constant prices, and if it is the latter, the prices of which year served for basis. Nor do we know the exact contents of this synthetic value indicator which is of basic importance for any macro-economic computation, and whether the heading "auxiliary activities" ("fuye" in Chinese)\* does not include the gross output value of activities pursued in the communal or brigade level industrial units of the village people's communes, which amounted at least to Y46 thousand million already in 1978. In that case, namely, after deduction of this production of industrial character, the remainder of the given sum (Y100 thousand million) would show only a 5 per cent difference from the gross value of agricultural output (Y95 thousand million) which I had calculated at constant prices of 1957. Yet I do not think it likely; most probably the value given in the report was computed at the actually valid "constant price", the base year of which may be 1975 or perhaps 1977, when the average statistical accounting price level of agricultural products exceeded – after repeated rises in agricultural procurement prices – the 1957 level by at least 50 per cent. That is what can be concluded from an article published in 1979 in the theoretical economic periodical "Economic Research" (Jingji Yanjiu), which makes the statement that "the category of 'constant price' used since the foundation of the Republic is, in a longer retrospection, in fact a 'changing price', for it has changed three times in thelast 20 years and will have to be changed again." [20]

In my opinion, in determining the value of gross agricultural output, in computing the value of cereal crops making up still about 43-44 per cent of the agricultural gross output, a statistical average accounting price of about Y210/ton must have been taken for a basis, in the course of conversion into the "constant price" of 1957, as against the Y140/ton used twenty years before. (In 1957 the value of cereal crops had a 48.2 per cent share in the value of gross agricultural output.) Since the state procurement price of cereals harvested in 1979 has been raised by 20 per cent for the quantity of compulsory sales, and by 50 per cent for the quantities sold above it — in accordance with the decision taken at the plenary meeting of the Central Committee of the Communist Party of China in December 1978, with a view to increasing profitability and stimulating cereal production — this important component of the new "constant price" to be introduced in 1980 or 1981 may be already as high as Y260-270/ton.

\*In Chinese statistics the headword "agriculture" is the collective term for the following five production activities: 1. agriculture (nongye); 2. forestry (linye); 3. livestock raising (muye); 4. auxiliary activities (fuye); 5. fishery (yuye). "Auxiliary activities" used to include, beside household farming occupations, also village handicrafts activities. At present in the final accounts of people's communes "industrial activities" (gongye) are listed separately. This allows us to draw the conclusion that in national statistics their value is included in gross industrial output.

According to official Chinese information, employment in the countryside exceeded 300 million from 1977 on, that is, at present over three-quarters of the 400 million working people are employed in the agricultural people's communes. Of this mass of village labour of about 305 million the number of those employed in the industrial and servicing units or the cultural, educational, health, welfare and administration units of the people's communes or pursuing non-productive activities is estimated at 45 million. Thus in 1978 in Chinese agriculture about 260 million full-time workers were engaged, to every one of whom there fell only an average gross output of Y560, which is only one-eleventh of the average per one industrial worker (Y6,200) and exactly one-twentieth of the average value per one worker in modern industry (Y11,200). And this average gross output per one agricultural worker is almost 3 times less than the value produced by a peasant manual or non-manual worker employed in the industrial sections of village people's communes in 1978 (Y1.600). On account of the nature of this indicator containing cumulation, these per capita gross output values show - at the present development and organizational level of the Chinese economy - the actual differences in the live labour productivites of industrial and agricultural labour to be about double. Therefore, later on, when determining the approximate value of the national income of 1978, we shall draw this comparison again upon the basis of net output sums not containing the cumulated material inputs.

As regards the other sectors and fields of material production we have data on values of clear contents and to be fixed into the national economic balance only for trade. As regards the other fields we have only indirect data on values or data on performance in physical units of measurement.

We can draw conclusions regarding the output of the *building industry* only from the amount invested in 1978 (Y47.9 thousand million), or from the growth in the value of national economic fixed assets (Y35.5 thousand million), assuming that a little more than the half of the invested inputs (about Y25 thousand million) is realized in the form of constructions.

In the *transport of goods* summary data expressed in ton-kilometres are available only on goods carried with modern vehicles. According to these data the 1978 transport performance of railways, on public roads, water and air routes amounted to 940 thousand million ton-kilometres, in which railways had a share of 56.8 per cent (533 thousand million ton-km), public road transport 2.9 per cent (27.4 thousand million ton-km), water transport 40.3 per cent (378 thousand million ton-km) and air transport 0.0 per cent (0.1 thousand million ton-km). The total output of transport with modern vehicles grew by 24 per cent in 1978 over the previous year.

In *domestic trade* the total value of products purchased by commercial organizations from industrial and agricultural production units amounted to Y174 thousand million in 1978, which exceeds the total value of purchases in the previous year by 11.1 per cent. Industrial goods had a share of Y128 thousand million (63.6 per cent) in this sum, while agricultural goods and auxiliary activities in villages one of Y46 thousand

million (26.4 per cent). The total value of retail sales was almost Y153 thousand million in the last year, 8.3 per cent more than in 1977.

Foreign trade was one of the most dynamically developing fields of economic activities in the last year. After almost four years of stagnation the total value of exports and imports grew by 33 per cent in 1978 and reached a magnitude of Y35.5 thousand million expressed in home currency. At the official average rate of exchange in the given year (Y157.7 = US 100) this corresponded to a total turnover of 22.5 thousand million. Within it the value of exports amounted to Y16.76 thousand million (10.63 thousand million) as a consequence of a 20 per cent growth, and the value of imports to Y18.74 thousand million (11.88 thousand million) with a 41.1 per cent growth; that is, imports exceeded exports by Y1.98 thousand million (1.25 thousand million). Since foreign currency earnings from activities other than trade surpassed such expenses in the last year by Y2.1 thousand million (1.33 thousand million), the current account balance of the country was practically in equilibrium, and became even positive by the end of the year.

The report gave no data about the absolute value of national income. One and half a months later, however, Deputy Prime Minister *Chen Muhua*, substitute member of the Political Bureau of the Central Committee of the Communist Party of China gave data on per capita national income in US dollars for 5 selected years of the past three decades in her article "In order to carry out the four modernizations we must purposefully control the increase of population" with a view to comparison with the United States and Japan. According to this article, the absolute amount of per capita national income in the three countries in question was the following between 1950 and 1976:

#### Table 2

Per capita national income in China, the USA and Japan (in US \$)

1950	1955	1965	1970	1976
28	49	78	95	139
1746	2194	3245	4352	7028
195	245	785	1630	4193
	1950 28 1746 195	19501955284917462194195245	1950         1955         1965           28         49         78           1746         2194         3245           195         245         785	19501955196519702849789517462194324543521952457851630

Source: Renmin Ribao, 11th August 1979.

The first two of the figures on China were published already in 1956–1957, though not converted into US dollars, thus, it is primarily the other three that are really news. The figures of 1965 and 1970 hardly differ from those in my earlier computations of per capita national income (\$72 and 97 resp.). As regards the figure of \$139 given for 1976, the difference is somewhat larger, because in my computations this value must have been

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around \$152. What is more, I computed the size of the national income of 1976, unlike earlier practice, not upon the basis of assumed gross and net value proportions in industry and agriculture, but with the aid of a proportion specifically given for 1977\* and relying upon official value data and growth indicators. The margin of error of such computations is within 5 per cent, and thus I do not think it an unfounded assumption that the figure of \$139 indicated for 1979 is a tendentiously underestimated value, and seems to be adjusted to the figure of \$130 for per capita national income which Chinese government organs submitted to the U.N.O. organs with a view to reducing the membership dues of the People's Republic of China. It is in itself a strange thing and supporting our doubts that for such an international comparison a year that was the most disadvantageous from every aspect was selected from the recent development period of Chinese economy.

If we start from the 1976 figure of \$139 of per capita national income as indicated in Chen Muhua's article, it will mean, reckoning with a population of 930 million, a national income of almost \$130 thousand million, which corresponds to Y243 thousand million at the exchange rate of the given year (Y1.88 = US \$1.00). Computing upon this basis and taking into account the officially given growth rates of 8 and 12 per cent for 1977 and 1978, respectively, the amount of national income rose to Y262 thousand million in 1977 and to Y289 thousand million in 1978, which correspond to \$151 thousand million and \$183 thousand million respectively, at the rates of exchange of the years in question. Accordingly, the per capita national income of these years would have been \$160 and \$191.

If, however, we start from the 1977 proportions between the gross and net values of industrial and agricultural output, as published in the above-mentioned article of the periodical "Economic Research", we shall arrive at the relative proportion of 58 : 42 between the industrial and agricultural net output values, by reckoning with a net output of Y123 thousand million of industrial production making up 33 per cent of a gross output of Y373 thousand million, and in agriculture with a net output of Y89 thousand million making up 66 per cent of a gross output of Y134 thousand million. Assuming a share of about 26 per cent for other production sectors, this gives Y286 thousand million for the national income in 1977, which means, upon the basis of the 8 and 12 per cent growth rates, the amounts of Y265 thousand million for 1976, and Y320 thousand million for 1978. Converted at the official average exchange rate of the given years, these

\*According to an article published in the periodical "Economic Research" in April 1979 the ratio of industrial to agricultural production, that is the share of the two fundamental production sectors in their combined output was 75 : 25 for gross value, and 58 : 42 for net value in 1977. [21]

I have to put in the remark that a dispute has arisen among sinologists about the interpretation of this figure, and also of its contents. When talking about this figure Edgar *Snow* mentions in his book the output of "industry and transport", which is all the less probable as *Zhou Enlai* indicated \$120 thousand million for the "total gross output of industry and agriculture", of which \$30 thousand million fell to agriculture. Some hold the view that the value of \$90 thousand million includes the production of all producing sectors outside agriculture. I think that this value covers but industrial production.

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amounts correspond to \$141 thousand million in 1976, to \$165 thousand million in 1977, and to over \$200 thousand million in 1978, from which we get the per capita values of \$152, 175 and 211, respectively. The difference between the two computations is thus 9.4 per cent.

According to my computations, in the production of the national income of Y320 thousand million in 1978 industry had a 43.7 per cent share, agriculture one of 30.0 per cent and the other production sectors 26.3 per cent. The net output of industry amounted to about Y140 thousand million in 1978, to which, according to my estimations, the nationalized large-scale industry contributed Y82 thousand million, the state manufactory industry Y19 thousand million, the urban cooperative industries Y18 thousand million, and the communal industries Y21 thousand million. The net output of agricultural production was about Y96 thousand million in the last year. Accordingly, the average per capita net output must have been Y2190 in industry and within it Y3280 in modern large-scale industry, Y2350 in manufactory industry Y2640 in the urban cooperative industries, and 740 in the village communal industries. In agriculture this average value was about Y370 in 1978. Accordingly, the average productivity of live labour employed in industry was almost sixfold of that in agriculture, and within it almost its ninefold in modern large-scale industry, over six- and sevenfold in the urban manufactory and cooperative industries respectively, and twofold in the village communal industries. These multiple differences show clearly the low efficiency of the live labour inputs of the huge masses of labour employed in the traditional sectors of Chinese social production, characteristic mainly of agricultural production, and which is basically a consequence of the still poor technological equipment and the lack of skills of agricultural labour.

On the utilization of national income we have official data only for the division according to destination of amounts allocated from the state budget. The latter, however, were hardly more than one-third of the total national income of 1978. As for the primary division of the national income, and the actual size of the accumulation and consumption funds, we must continue to resort only to estimations. A certain basis is offered for this by such Chinese information that for example to each member of the village communes there fell an income of only Y74 from collective farming in the last year, or that the yearly wage fund of manual and non-manual workers amounts to almost Y57 thousand million, and that the wage of workers in state enterprises and institutions was Y644 on a yearly average. Of the Y112 thousand million revenues of the budget 40 per cent (45 thousand million) came from industrial and commercial tax payments, and a further 39 per cent (Y44 thousand million) from the profit payments of state enterprises. On the expenditure side the largest item was the amount of Y40 thousand million spent on investment financing, which was followed by Y17 thousand million spent on the renewal and enlargement of plants and firms, and the same amount was spent on defence and military preparations, Y11 thousand million was spent on cultural, health and scientific purposes and Y5 thousand million to cover administrative tasks. Almost Y8 thousand million of the state budget was spent on agricultural development and the support of the

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people's communes. Within the same amount of budget expenditure this item rose to Y17 thousand million in the present year. At the same time, however, military expenses will also rise above Y20 thousand million, to which are added expenses on the development of war industry and on modernization of at least the same amount, covered from other sources or accounted under other items, the total of which approaches – according to the computations of experts of the international strategic research institute – \$37-38 thousand million in 1979. [22] All considered, according to my computations the consumption fund had an about 62 per cent share – about 200 thousand million – from the national income of Y320 thousand million of 1978, so that still a rather high ratio – 38 per cent – was left for accumulation.

The fact that in the utilization of national income the share of the accumulation fund has been well over 30 per cent, which would be still justified under Chinese conditions, and that in certain years it rose even above 40 per cent, has been admitted by some authors of articles on the Chinese economy. [23, 24] Under such conditions the average consumption per inhabitant did not reach 210 even in 1978, which amount corresponds to about \$135.

The values of about \$215 and \$135 of per capita national income and social consumption fund resp. can give a rough idea, also to the outsider, of the general development level attained by the Chinese economy by the late 1970s, and of the still extremely depressing backwardness, the overcoming of which will remain obviously the central question of Chinese socio-economic development for long years to come.

## The growth rate of the Chinese economy in the 1970s

The growth indicators published following the second session of the 5th National People's Congress of this year allow us to compute the gross output of industry only for the years 1976–1978, and that of agriculture only for the last two years (1977–1978). Apart from this, in addition to reliable statistical data published during the 8 years following Liberation, and the figures about the growth achieved in the ten years between 1965 and 1974 indicated by *Zhou Enlai* at the first session of the 4th National People's Congress of January 1975, we could obtain information from various articles [25] published in the Chinese press in the course of the last one or two years on official figures of average yearly growth rates of industrial development in the 28 years from 1949 to 1977, in the three-year rearrangement period of 1963–1965, in the third five-year plan period of 1966–1970, and in the fourth five-year plan period of 1971–1975. Similar growth indicators of the gross agricultural output are available only for the 3 years 1963 to 1965. Thus there are still many gaps and uncertainties in the statistical time series of the thirty-year development of the Chinese economy, which are difficult to bridge over by means of various computations and estimations. From that aspect the most obscure

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periods of the past twenty years of economic development were the second five-year plan period of 1958-1962, which is itself divided into two clearly delimited phases: the three years of the so-called "big leap" (1958-1960) and the two years of the "big recession" (1961-1962); and the year of 1976, when Chinese economy "has come to the brink of ruin" – to use Hua Guofeng's words. From the aspect of our investigation it is particularly important to find out the extent of recession in the said year since, without this missing link, the average growth rate achieved in the 1970s cannot be computed.

As regards the development of the gross output of industry in the 1970s, I took for a starting-point the sum of \$90 thousand million indicated by Zhou Enlai in an interview [26] given to Edgar Snow,\* which corresponded to Y216 thousand million at the official rate of exchange of the time, and expressed the gross value of industrial production presumably at the "constant price" of the given year.\* Upon this basis, and with an average industrial growth rate of yearly 9.1 per cent indicated for the 4th five-year plan period, the gross output of industry reached a level of Y333.5 thousand million in 1975. As compared with this, the gross output of industry amounted in 1976 to Y326.4 thousand million – computed upon the basis of the value of Y373 thousand million for 1977 and according to the growth rate of 14.3 per cent for that year –, that is, it fell only by 2.2 per cent in comparison to the level of the previous year. A larger reduction would be conceivable only if the value of industrial production in 1975 had been much higher – at the "constant price" of the given year — than the value computed at the 1970 prices. Yet this would have been a change in the price level contrary to the earlier tendency of lowering prices, which can be considered as quite out of question.

We call to check the comparability of the price levels of gross industrial output in 1976 and in the preceding years also with a comparatively simple method of approximating computation. What we have to do is to control Prime Minister Hua Guofeng's statement made in his report at the first session of the 5th National People's Congress about the work of the government. According to it "Between 1974 and 1976, because of the interventions and sabotage of the 'gang of four', a total value of Y100 thousand million of industrial production, 28 million tons of steel, and Y40 chousand million of financial income were lost to the country, and the whole national economy came to the brink of ruin." [27] Not going into a closer investigation of causes — which would soon make it clear that the slackening growth rate from 1974 on and the standstill of 1976 was not exclusively the deed of "the four" —, and concentrating our analysis only on the

\*It has to be mentioned in this text that the differences between the levels of the "constant price" used in the various development periods for rendering the dynamics of industrial production measurable and comparable and changed in each 5 or 10 years are much smaller than in agriculture. For example, the level of "constant price" characteristic of the late 1970s is only 30 per cent lower than the 1952 level of "constant price", while over one-third (11.1 per cent) of the reduction was the result of switching over to the "constant price" of 1957. There are several signs to indicate that the next large-scale reduction of prices was effected in the early 1960s, so that after that only small corrections followed.

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computation method of these losses, we shall arrive at extremely interesting and instructive results.

If we submit the figures of losses reported by Hua Guofeng and much cited by others to a thorough examination, it will turn out after a few iterative operations that these figures are arrived at if the production level actually achieved in the given years is compared with such assumed (or planned) levels as the Chinese industry could have achieved with an average yearly 10.5 per cent growth rate of industrial production, and with a 13 per cent one of steel production.\* The assumed average yearly growth rates coincide in both cases almost entirely with the growth rates of above 10 per cent, i. e. of 12.3 per cent, envisaged in the economic development programme for the years 1978-1985 - approved at the first (February) session of the Fifth National People's Congress. This also allows us to draw the conclusion that in the medium-term plan of 1978-1985 the planners envisaged practically the same growth rates as had figured already in the 4th five-year plan of 1971-1975, but which, for various reasons, could be then kept up only in the first half of the plan period. Yet after the preceding computation we have no reason to doubt that the total value of Y216 thousand million of industrial gross output indicated by Zhou Enlai for 1970 may serve as adequate grounds for computing the average yearly industrial growth rate achieved in the 1970s. Comparing this amount with the gross industrial output of 1978 (Y423.1 thousand million) we get an almost 96 per cent increment, which corresponds to a yearly average growth rate of 8.8 per cent.

Year	Total g	ross industrial c	output	Volume of steel production			
	in case of a 10 p.c. growth rate (thousand million yuan)	Actual value thousand million yuan	Difference thousand million yuan	in case of a 13 p.c. growth rate (million tons)	Actual volume (million tons)	Difference (million tons)	
1970	216.0	216.0	and a straight	17.8	17.8	and the second	
1971	238.7	237.6		20.1	21.0	1. 1. 1. 1. 1.	
1972	263.7	265.0		22.7	23.0	and the second	
1973	291.4	287.2		25.7	25.5	al source and	
1974	322.0	310.6	-11.4	29.0	23.8	-5.2	
1975	355.8	333.5	-22.3	32.8	26.0	-6.8	
1976	393.2	326.4	-66.8	37.0	20.5	-16.5	
Total of	difference		-		and the second		
in 1974–	1976		-100.5			-28.5	

\*The result of the computation was the following:

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In trying to find out the dimensions and growth rate of agricultural development, the gross output of \$30 thousand million indicated by Zhou Enlai is, unfortunately, of no use to us. If we convert this amount at the same rate of exchange (Y2.4 =\$1), we shall receive Y72 thousand million which, though well fitting into a time series containing value data at "constant prices" of 1957, yet, compared to the official figure of Y146 thousand million in 1978, would mean more than a doubling of agricultural output, that is, the achievement of a yearly average growth rate of 9.2 per cent, i.e. one even higher than that of industry. As a matter of fact, every sign indicates that in the ten years in question the growth rate of agricultural production was slower even than in the years before, in spite of the fact that in the 1970s there were no catastrophic recessions. Therefore, it seemed more reasonable to determine the gross output of agriculture by starting from the value of Y134 thousand million in 1977 and, by determining the value of cereal production in the years in question at the present statistical accounting price (Y210 per ton), to express the value of gross agricultural output at the level of the present "constant price". The uncertainty factor of this computation method, and its likely margin of error of 5-6 per cent is the estimated share of the cereal crop within the total value of gross agricultural output. The result of my computations was Y114 thousand million for 1970, and Y131.5 thousand million for 1975, which is to say that the value of gross agricultural output rose by a total of 28 per cent during the past eight years, or, by 3.1 per cent on a yearly average.

The above-mentioned growth indicators of the two fundamental production sectors make it easy to compute the average yearly growth rate of the combined gross output of the two sectors. The combined gross output of industry and agriculture rose by 72.4 per cent between 1971 and 1978, that is, by yearly 7 per cent on average. The national income computed on the basis of a previous statement of net output values amounted to Y192 thousand million in 1970 at the level of current "constant prices", to Y266 thousand million in 1975, and in 1976 it remained by only Y1 thousand million below the value of the preceding year. Thus national income grew by almost 67 per cent in eight years, which corresponds to a yearly average growth rate of 6.6 per cent. Per capital national income grew at a considerably lower rate (by 43 per cent, that is at a yearly rate of 4.6 per cent), because of an approximately 16 per cent growth implying a yearly natural increase of the population of almost 2 per cent.

Such development of the growth rate of the Chinese economy in the current decade has been basically the consequence of a slower growth and standstill in development, interspersed also with partial recessions, which occurred in the Chinese industry between 1974 and 1976, and in Chinese agriculture with a one-year lag: between 1975 and 1977. For the slowing down of the growth rate, as well as for the temporary recession or stagnation of industrial and agricultural production the present Chinese leadership is trying to shift the responsibility entirely onto the extreme leftist leaders, the so-called "gang of four" arrested in October 1976. Obviously, such presentation of the problem is all too one-sided, over-simplified and tendentious. It is suitable only for temporarily diverting attention from the real causes of disproportions and tensions having developed

in the Chinese economy, and from the basically erroneous theoretical and ideological grounds and the real motives of economic development conceptions and economic policy in the last twenty years, rooted in "Mao Zedong's thoughts". As w shall see, the uneven economic development of the 1970s - with its slumps and recessions – has not been the first case since the foundation of the People's Republic of China and it is not even a phenomenon characteristic only from the beginning of the cultural revolution (1966), but a necessary concomitant and consequence of the "particular way" followed since 1958. But let us first say a few words about the development of foreign trade and foreign economic relations and their growth rate during the 1970s.

Similarly to the general economic development also the development of the Chinese foreign trade and foreign economic relations has been rather uneven in this decade. The fast upswing of 1971-1974 was followed by stagnation between 1975 and 1977, alternating with some recessions, and a new upswing came again, as I have pointed out, only beginning with the last year. While the value of foreign trade turnover at current prices rose from \$4.3 thousand million of 1970 to \$22.5 thousand million by 1978, that is, to more than five-fold, the same turnover of 1978 amounted to about \$11.5 thousand million at 1970 prices, which means that the volume of trade has grown to less than 2.7-fold during the last eight years. The latter corresponds to a growth of trade of about 13 per cent on a yearly average. Within the total trade the share of socialist countries fell from 20 per cent in 1970 to 13-14 per cent, while the share of advanced capitalist countries rose from 51 per cent to 60 per cent. In 1978 the People's Republic of China transacted a trade of over \$5 thousand million with Japan, \$1.1 thousand million with the U.S.A., and almost \$3 thousand million with the Common Market countries, that is, these three power centres of the capitalistic world economy had a 40 per cent share in Chinese foreign trade, According to by no means complete data, only between 1973 and 1977 the People's Republic of China signed 66 contracts with firms of nine different advanced capitalist countries, concerning the delivery of complete factory equipments in a value of almost \$2.7 thousand million. [28]

To what extent Chinese development has been uneven and fluctuating in the last thirty years is demonstrated by Table 3.

It stands out clearly from Table 3 that - except for the first five-year plan period - in the course of the last thirty years there have hardly been any phases exceeding three years in the economic development of the Chinese People's Republic in which we could see unequivocal and normal economic growth (not of a restoration character), in all fields of the national economy.\* Therefore, it is an extremely difficult as well as risky undertaking to select from this development period of 30 years, with alternating upswings and recessions, those shorter or longer phases whose growth trends and proportions may serve more or less as a basis for a prognostication of economic development and structural

\*Within the 3rd five-year plan period figuring in the 5th row of Table 3could also have put the years of the "cultural revolution" (1966–1969) under a separate heading, for in 1967 there was a considerable recession in industry.

(percentages)							
Denomination of the phases	Years	Gross industrial output	Gross agricultural output	Industrial and agricultural output combined	National income		
1. Restoration period	1949-1952	34.8*	14.1*	21.1*	19.3*		
2. 1st five-year plan period	1953-1957	18.0*	4.5*	10.9*	8.9*		
3. 2nd five-year plan period	1958-1962	3.8*	-4.3*	-1.0	-2.0		
Within it:							
a) years of the "big leap"	1958-1960	14.7*	-7.2	3.6	0.8		
b) years of the "recession"	1961-1962	-10,7*	0.0*	-7.5*	-6*		
4. Years of "rearrangement"	1963-1965	17.9*	11.1*	15.7*	14.5*		
3b + 4. Years of "readjustment"	1961-1965	5.5	6.5	5.8	5.3		
5. 3rd five-year plan period	1966-1970	11.7*	4.1	9.7	6.6		
6. 4th five-year plan period	1971-1975	9.1*	2.9	7.8	6.4		
7. Years under the influence of "the gang of four"	1974-1976	4.3	3.3	3.9	4.0		
8. Years of "putting things in order"	1977-1978	13.9*	4.7	11.4	10.0*		
	-				1		
A. The 8 years of socialist building	1949-1957	24.0*	8.0*	14.6*	12.6*		
B. The 20 years of voluntarism	1958-1977	9.5	2.6	6.7	4.6		
C. The 28 years of the People's Republic of China	1949-1977	13.5*	4.2*	8.6	7.0*		
D. The first eleven years	1950-1960	21.5	3.6	10.2	9.3		
E. The second ten years	1961-1970	8.6	5.3	7.4	5.5		
F. The 1970s	1971-1978	9.2	4.1	7.6	6.8		

Average (compound) yearly growth rates in the two main sectors of production and in national income in various phases of economic development in the People's Republic of China (nercentages)

Table 3

Comment: the data marked by \* are taken from official Chinese sources.

The rest are based upon the author's computations and estimations.
changes in the next 6 or 7 years. This will be all the more difficult, as in the coming period, and particularly in the next three years, that is between 1979 and 1981, the leaders of the People's Republic of China again plan a "rearrangement" in almost every field of the economic life in order to *readjust* the disproportions in the national economy, to *restructure* the existing systems of economic organization and control, to *consolidate* production and management, and, as far as it is possible, also *to improve* the raising of the production level. The recently announced policy of "readjustment, restructuring consolidation and improvement" recalls in some respects the "readjustment policy" introduced after the failure of the "big leap" and the subsequent grave economic recession. Nevertheless, the measures now planned seem to be better considered than the old ones: they come not so much from the urge of circumstances but rather from sound recognitions, and, it is hoped, they will also last longer than similar measures introduced in the early 1960s.

All considered, from the above-mentioned periods of Chinese economic development, the eight years of the 1970s are a period that may be taken into consideration in prognosticating economic growth in the coming years up to 1975, partly because of its being close in time, and partly because of its basic foreign policy and foreign economic orientation.

# Development prospects of the Chinese economy up to the mid-1980s

After almost twenty years of silence, it happened first in the spring of 1978 that in the People's Republic of China a few specific figures and exactly outlined objectives were published about the medium-term economic development plans and conceptions of the party and state leadership. At that time this had the effect of a sensation, since foreign observers and sinologists had not known the objectives and basic programmes of any Chinese five-year or longer economic plan since 1960.

It became known to the public from the communiqué of the first session of the 5th National People's Congress held in late February and early March 1978, and first of all from Hua Guofeng's report published in full that government organs in China had been working already since the spring of 1975 on a ten-year plan of national economic development covering the period from 1976 to 1985. But a more detailed elaboration of this plan could follow only from the middle of 1977, because of the sabotage of the "gang of four".

According to the data published on the ten-year plan, the cereal crop in China must achieve 400 million tons by 1985, and the output of steel 60 million tons. For the eight years between 1978 and 1985 the plan envisages an average yearly growth of 4-5 per cent for gross agricultural output, and one above 10 per cent for gross industrial output. During the same time – according to the plan – the total of the government revenues and of expenditure on national economic investments has to reach dimensions identical with the aggregate amount of the revenues and investment outlays of the preceding 28 years. [29]

According to Deputy Prime Minister *Li Xiannian*'s statement made before Japanese businessmen, the order of magnitude of national economic investments envisaged up to 1985 according to the original ideas would reach Y1 billion, which is equivalent to \$645 thousand million at the current rate of exchange (Y155 = US\$100). [30]

The investment section of the plan contains 120 large projects of special importance, among them 10 iron- and steelworks, 9 non-ferrous metallurgical works, 8 big coalmines, 10 new mineral oil and natural gas producing sites, 30 high-performance power stations, 6 new railway lines and 5 ports of key importance. When these projects will have been finished and put into operation, China will have – according to the government report – fourteen comparatively strong and reasonably placed industrial basic areas. For the large new projects the Chinese wish to procure part of the production equipment from advanced capitalist countries, some through the ordinary exchange of goods, and some in the framework of construction transactions and credit agreements.\*

The plan lays down a number of specific measures also for agricultural development, aimed at the improvement of farming conditions and of work organization on the one hand, and at the increase of yields and the raising of agrotechnical standards on the other. As regards the former, considerable progress involved by the measures accepted at the 3rd plenary session of the Central Committee elected at the 11th Congress of the Communist Party of China – held in in December 1978 – which consider the low-level property of production teams in village people's communes as the basis of the "threelevel" ownership relations\*\* and prohibit an arbitrary regroupment of the income and property of production teams for financing the current expenses or investment of enterprises and farming activities at the brigade or commune level. At the same time, with a view to increasing the profitability of farming of the production teams, the norms of obligatory cereal sales (procurement) are left unchanged for five years and fixed according to the average crops between 1971 and 1975, while procurement prices have been raised, as mentioned, by 20 per cent for the obligatory quantity, and by 50 per cent for the quantities above it. With a view to increasing agrotechnical supply and the security

\*In the autumn of 1978 some of the Chinese leaders still said that the value of imports wanted for the implementation of the investment programme might reach even \$200 thousand million, in which the value of production equipments would be about 60 per cent. However, the same leaders adopted a more pessimistic tone already in the spring of 1979. For example, Deputy Prime Minister Li Xiannian admitted with "self-critiscism" before Japanese journalists that "Some of us, myself included, thought that we could fulfil the plan of yearly 60 million tons of steel production by 1985. It seems now that also this target has to be reduced." (Reuter, 10. 3. 1979)

\*\*In the People's Republic China, three forms of collective ownership exist in the village people's communes, which correspond to the three levels of production-management and farming units. The lower level is that of the production teams (30-40 peasant families, mostly doing the same work), at the medium level there are the production brigades or large teams (dadui) comprising the teams of the lower level, and among them there are units pursuing industrial or other activities. The upper level is made up of the organization of people's communes comprising and controlling the production brigades; their number is about 50 thousand in the whole country.

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of production the plan lays down that the mechanization level of the most important agricultural activities has to be raised above 85 per cent by 1985 and it has to be achieved that by that time at least 1 mu of such crop land should fall on each head of the agricultural population (that is 1 hectare per 15 inhabitants), as brings a high crop independently of weather conditions.

It appears from the declarations of some of the Chinese leaders, as well as from the articles on economic policy published in the Chinese press during the last 15 years that the present Chinese leadership considers the 7-8 years up to 1985, and within it particularly the first 3-4 years, to be of key importance for the foundation and successful implementation of the "four modernizations" announced earlier. As it is known, these "four modernizations" have basically the aim of bringing China – by means of full modernization of agriculture, industry, defence, and science and technology – into line with the leading countries of the world still in this century, that is, to raise her to the rank and level of a real world power.

In this article I do not intend to challenge the reality of the long-term economic development conception of the Chinese leaders, all the less so as in one of my earlier works mentioned above I gave my opinion on the subject in detail. Maybe later on I shall revert to the subject, taking into consideration all that has happened in the meantime and that may, obviously, amend my earlier long-term prognostication in some respects. At present I investigate only the medium-term development prospects of the Chinese economy and seek answer first of all to the question, whether the Chinese leadership after Mao approaches the economic problem with a greater sense of reality, and whether it is able to set actually attainable economic development objectives, or whether economic planning is still basically characterized by subjectivism and wilfulness. If we recall that already twenty years ago, in 1958, Mao Zhedong set the aim of achieving a yearly 500 thousand million tons of cereal crops and 100 thousand million tons of steel output through a few years of continuous "big leap", the present targets of 400 million and 60 million tons for 1985 seem in fact much more modest and realistic. Yet the distance between voluntarism and realism is immeasurable, and thus the refraining from objectives far from reality and more like wish-dreams is in itself no satisfactory proof of the attainability and realistic foundation of the present targets. Therefore, in order to answer the question, we must start from the present situation of the Chinese economy, its present level of performance and accumulation abilities, and the actual state of its structural disproportions and distortions, that is, from the situation which I tried to describe and analyze in the foregoing two sectors of this article also with the aid of numerical indicators by relying on available statistical data.

It is clear from what has been said that achievement of the development objectives set for 1985 necessitates a considerable increase of the development rate of the 1970s in all the fields of economic activities examined above (industrial and agricultural production, accumulation and investments, foreign trade and foreign economic relations). In the present situation of the Chinese economy it is, however, impossible to achieve such an increase of the growth rate by relying on domestic resources. This has been recognized

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by now by the more sensible of the Chinese leaders, and they suggested that the objectives set for 1985 should be somewhat postponed and that the implementation period of the various programmes should be prolonged by 3-5 years. Some still hold the opinion, however, that the original objectives are realistic: since the growth rate of the Chinese economy can be considerably accelerated by resorting to greater foreign resources, as advanced capitalistic countries are willing - upon political and economic considerations - to grant considerable and efficient material, technical and financial help for the realization of the modernization objectives of the People's Republic of China. Thus, the question has not yet been decided, the dispute is going on, and, though the national economic plan of 1979 approved at the second session of the 5th National People's Congress as well as a number of other measures (such as the announcement of the three-year "rearrangement period") indicate that in the spring of 1979 the "moderate" line got the upper hand, the objectives of the ten-year national economic development plan approved at the first session were not amended officially. Thus, for the time being, we cannot disregard those objectives, and in the course of prognosticating the Chinese economic development prospects up to 1985 it is justified to continue comparing our own forecasts, as far as possible, with the objectives announced.

The fact is that arbitrary policies of the past twenty years with their great power and hegemonistic pretensions led to the emergence and chronic appearance of such tensions, dispropotions and contradictions whose gradual elimination would require an economic development conception and policy radically different from the previous ones, totally different development priorities, and accordingly, a considerable regroupment of means. The primary objective of economic development in the past twenty years was, namely, the creation of industrial and scientific backgrounds necessary for the manufacturing of nuclear arms and rockets constituting the material-technical basis and symbol of the Chinese great power status, that is, such a forced industrial development centred on the war industry, which still goes on sucking away an increasing amount of means from the productive sectors of the national economy for a basically improductive purpose. We can hardly expect a radical change in this field in the next few years. It is, however, already clear that a few Chinese economists and politicians - some of whom have been allowed to publish their works only beginning with the last year since the start of the so-called "cultural revolution" (1966) – are well aware of the problem. They stress the necessity of creating a "complex balance" of the national economy, and they see the way towards that goal in the assertion of the order of development "agriculture - light industry heavy industry", which was raised as a requirement as early as in 1956, emerging again in 1961-63, but which has not been asserted yet.\*

\*This has been made clear in one of the recent articles of Lu Dingyi rehabilitated is December 1978: "In 1956 Comrade Mao Zhedong worked out his well-known study of the ten great mutual relationships" and pointed out that in the national economy agriculture had to be considered as basis, and industry as a leading factor, and then he laid down the order of investment: 'agriculture – light industry – heavy industry'. Everything went in the greatest order. If development had followed this

A faster development rate of agriculture is in fact a question of key importance for the Chinese economy. As long as the maintenance of the present per capita food production level necessitates the employment of two-thirds of the working population, that is, of 300 million people in agriculture, there can be no question of a balanced development in the social and national economic sense. The contribution of these 300 million people to national accumulation is too low - the low procurement, prices and the wide gap between prices of agricultural and industrial products notwithstanding - it does not reach even one-third of the accumulation fund according to my computations. This is first of all a consequence of the fact that Chinese agricultural products entering trade represent hardly more than 30 per cent of the total output (with cereals this is less than 20 per cent), and this low share of commodity production delimits the extent of taxing away incomes through the price margin from the outset. But the agricultural direct tax makes up only about 5-6 per cent of the value of gross output. Thus the amount of approximately Y36 thousand million taxed away from agriculture yearly in direct or indirect ways, and the internal accumulation of Y7-8 thousand million spent on the sector's own development represent even together only a magnitude that corresponds to about Y150 per worker, as opposed to the avarage per capita accumulation of about Y1000 in the other productive sectors of the national economy.\*

Today it is quite obvious also to Chinese economists that a faster development of agriculture and the increase of its accumulating ability cannot be accomplished through an investment policy pursued in the spirit of such slogans as "relying upon our own resources", and "agriculture should learn from Dazhai", under which policy only a fraction of the accumulation and development means taken away from agriculture was given back in the form of government subsidy. Under such conditions the "modernization of agriculture" would be but a slogan without meaning and the average yearly growth rate of agricultural production could not surpass 2-3 per cent in the future, either, while an 80-85 per cent mechanization of agricultural labour would be drawn out over 20-25 years. I must mention at this point that – relying upon experiments with a few

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course, our country could produce now (in 1979) yearly 50–60 million tons of steel, and the problem of feeding a population of 900 million would have been settled as well. But in 1958 things suddenly changed. Under the slogans of the so-called "big leap" steel production was to be raised from the 5.8 million tons of 1957 to 25 million tons by 1962. That is, the order of 'agriculture – light industry – heavy industry' was changed into 'heavy industry – heavy industry – heavy industry'. In other words: holes were left in the national economic plan and, instead of creating equilibrium, a constant disequilibrium was promoted." [31] This last phase is a reference to Mao Zhedong's well-known thesis according to which "disequilibrium is constant and absolute, while equilibrium is but temporary and relative."

<sup>\*</sup>In these computations village communal industry, together with its value of output and its employees, was listed within the agricultural production sphere, since it belongs there organizationally, and most of its products are used in the agricultural sector. The decision taken on the fourth plenary session of the CC of the CPC in September 1979 on some problems of the accelerated development of agriculture pointed out that "the average collective accumulation of a working team does not attain 10,000 yuans, in some places they cannot maintain even simple reproduction. [32]

communes or districts – Chinese experts estimate the modernization costs of Chinese agriculture, that is, of the full mechanization of basic works at Y800-900 thousand million (\$516-580 thousand million). This is only 10-20 per cent less than the full amount of Y1 billion spent on the development of all sectors and fields of the national economy during the almost thirty years since the Liberation. [30]

In my computations, in order to achieve the agricultural objectives set for 1985 as deadline - such as cereal crops of 400 million tons and an 85 per cent mechanization the amount of various government subsidies and agricultural investments (only of Y7-8 thousand million in earlier years but already Y17 thousand million in 1979) should have to be raised gradually above Y30-40 thousand million annually. This is to say that in the course of the next 5-6 years about one-third of the approximately Y600-700 thousand million to be spent on the development of the national economy ought to be used for the direct support of agriculture, not mentioning the capital intensity of other, subsidiary investments outside agriculture (machine-building industry, chemical industry, infrastructure) necessary for pursuing such an intensive agricultural development policy. Such requirements could be fulfilled continually only if, on the one hand, the volume of means and incomes drawn away from agriculture would be considerably reduced in the coming years and thus the accumulating ability of agriculture would be increased. On the other hand, the larger part even of the means taken away would have to be used for the development of industries that supply agriculture with modern means of production (manufacturing of agricultural machines, plant protectives and fertilizers).

We can meet with such conceptions today in a few articles on Chinese economy, and such a measure was, for example, the decision announced at the end of the last year according to which agricultural purchase prices were raised considerably by summer, and the prices of a few industrial products – necessary for agricultural production – were reduced. In spite of that, we have rather important and quite well-founded doubts as to whether the development of the Chinese economy could take such a turn in the near future. This would require, namely, such reduction of the amounts spent on military purposes and the "modernization of defence", as can hardly be expected with the present personal composition and policy of the Chinese leadership. And yet the additional amount of Y15–20 thousand million necessary for accelerating agricultural development can hardly come from other resources or from any regroupment within the Chinese state budget.

Therefore, what can be prognosticated with the highest probability is that the targets of agricultural development set for 1985 will be achieved with a delay of 2-3 years, that is by 1987–1988, so that by 1985 we can expect cereal crops of at most 370–380 million tons. Thus agricultural output will grow by a yearly 3-4 per cent instead of the planned 4-5 per cent, with the growth in value owing to the raising of procurement prices taken into account as well. The degree of mechanization of fundamental agricultural work may rise from the present 35-40 per cent to 50-60 per cent by increasing the power machine stock of 1978 to about 2-2.4-fold. As for the use of fertilizers, in 1985 about 180-200 kg of fertilizers will fall to one hectare as against

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the present 100 kg (in effective substance). The share of animal husbandry in the total value of agricultural gross output may rise from the present 14 per cent to over 20 per cent. At the same time, the pig population will grow from 300 million in 1978 to 450 million.

The yearly growth rate of over 10 per cent envisaged for industrial development up to 1985 cannot be guaranteed through eight years by any means, not even if important foreign technological assistance were used. Such a high growth rate would, namely, even further increase the already hardly bearable disproportions of the Chinese economy, and would lead, similarly to previous experience, to a new slowdown or recession in industrial production within a few years. The 4-5 per cent development planned in agriculture is in itself such a programme as could be carried out only with a considerable reduction of the growth rate of industrial production — to a maximum of 6-7 per cent — and through a radical regroupment of development funds. Since, however, we have prognosticated a yearly 3-4 per cent average growth of agricultural production, this would allow — without any particular deterioration of proportions — an average yearly growth of 7-8 per cent or even of 9 per cent in industry, depending on which branches are given preference in development.

At present deficiencies and tensions are found mainly in fuel, energy and basic material production and supply. An improvement of this situation would require a considerable volume of investments of a low rate of return. It is questionable at what rate, by what means, from what resources and, mainly, with what efficiency such industrial development and investment programmes can be implemented. I think it is out of question that the investment costs of the 120 industrial and infrastructural large projects laid down in the ten-year (practically eight-year) plan approved in 1978 could be covered up to 1985. These costs would amount, namely, to about 70 per cent of the originally envisaged Y1 billion of investment costs, that is, to about Y700 thousand million (or \$450 thousand million). As I have mentioned, about Y80 thousand million are spent on economic and military purposes from a budget of Y112 thousand million in 1979, to which may be added a further development input of about Y20 thousand million from local resources. Thus, in my opinion, it will take at least 10-12 years to carry out the investment programme of the original plan, taking into consideration the fact that the growth of the capacity and accumulation ability of the national economy will be accompanied, in the course of implementation, by growing costs. In the first five years the rate of investments and their putting into operation may be somewhat accelerated, if the People's Republic of China received some of the imported technological equipment from her partners in advanced capitalist countries within the framework of medium- or long-term credits. This may reach, however, even in the best case, only about 10 per cent of the total investment costs in the next 10-12 years. This means that they would have to raise credit in the amount of about 60-70 thousand million dollars up to 1990 and - considering the rate of credit offers up to now - this does not seem unattainable. About half of this amount (\$35 thousand million) will be probably laid down in agreements in the next two or three years. By July 1979 credit contracts were

signed with the governments or commercial banks of capitalist countries to the tune of 22 thousand million. [34]

From what has been said it follows that the 80 million tons of steel output envisaged for 1985 are also to be expected with a few years' delay, that is by 1987–1988. Thus, for the year in question only about 50 million tons of steel output can be prognosticated. The volume of coal produced will be approximately 800 million tons by 1985, which will allow, with other primary sources of energy taken into account, the production of yearly 400 thousand million kilowatt-hours of electric energy. Crude oil production may rise – with the aid of western oil companies – at a yearly rate of 6-7per cent, and this may lead to an output of 150-160 million tons by 1985. During the same period, home demand will presumably rise from the present yearly 85 million tons to 130-140 millions, which will allow to export about 20-30 million tons. The output of fertilizers can be raised above 100 million tons by 1985, which corresponds to about 20 million tons in terms of effective substance. This quantity will be enough to cover home demand, and a few per cent of it may even be exported.

#### The development level of the Chinese economy expected for 1985

On the basis of the above outlined development of agriculture and industry, the amount of national income will reach about Y500 thousand million by 1985 (at constant prices of 1979). This means nearly a 7 per cent yearly average growth rate during seven years. Presuming that by that time the population of the People's Republic of China will grow to about 1040 million,\* the per capita national income will be around Y480, which is equivalent to \$310 at the present official rate of exchange. The share of industry in the creation of national income will rise from the present 43–44 per cent to only 46 per cent, while that of agriculture will fall from 30 per cent to 24 per cent. The share of other production branches and services will rise from 26 to 30 per cent.

The per capita quantities of the basic industrial and agricultural products will probably be the following by 1985:

electric energy	384 kilowatt-hours
coal	770 kg
crude oil	144-154 kg
steel	48 kg
cement	96 kg
cereals	356-365 kg

\*Reckoning with a 10 per mille average annual natural increase of the population. The declared effort of Chinese leadership is to reduce the annual rate of population increase from 12 per mille in 1978 to 5 per mille by 1985. In this case the population of the PRC would be 1013 million in 1985.

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According to my estimation the number of industrial workers will approach 100 million by 1985, within which, however, the number of peasant-workers employed in the village communal industries (about 40 million) will be approximately identical with the number of those employed in the state-owned industry. Among the latter the number of those working in modern large-scale industry will be about 30 million. Within agriculture the number of those engaged in plant cultivation will remain at about today's level, while in animal husbandry and in the auxiliary occupations the number of workers will be somewhat rising. Urban population will rise from the present 120 million to about 140 million.

## Expected development of foreign trade and credits

In the recent past we could witness an unprecedented upsurge of Chinese economic diplomatic activities. In April 1978 the People's Republic of China signed a trade agreement with the Brussels Committee of the European Economic Community. This was followed by a long-term trade contract signed with Japan, which envisages deliveries in a value of \$10 thousand million to both countries up to 1985. From the spring of 1978 dozens of Chinese trade delegations visited the advanced capitalist countries, and even larger number of western politicians and businessmen came to China. In March 1979 a five-year trade agreement was concluded with the United Kingdom in a value of \$14 thousand million. And in July 1979 – following the agreement on property rights signed a few months before – a trade agreement was signed with the United States made out for three years, which will, however, remain valid for a further three years unless one of the parties wants to discontinue it.

All these events aroused, particularly in the beginning, a considerable optimism in the business circles and even government circles of some capitalist countries. In today's international literature, however, it is called the "second Chinese euphoria", implying that a similar enthusiasm was seen already in the early 1970s, after Richard Nixon's memorable visits to Peking and Shanghai. At the end of February 1979, however, after the Chinese armed attack on Vietnam, high spirits were broken because the Chinese party suspended for "an uncertain period" the signing of 32 contracts that had already been fully discussed with Japanese firms, even the terms of delivery and payment had been agreed upon, and the total value of which amounted to nearly \$2.8 thousand million. The underlying cause was a revision of the Chinese investment programme, since it soon turned out that if the ordering and purchase of foreign factories, complete equipments, individual machines and equipments and important materials were continued at the previous rate, the foreign debts of China would soon reach \$100 thousand million. At the expected growth rate of the exporting capacity of the Chinese economy such debt could not be repaid within the framework of ordinary trade deliveries even by the turn of the millennium.

According to the recent and more moderate statements of a few Chinese leaders the yearly total of Chinese imports may reach – at 1979 wold market prices – about \$25–30

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Annex

Denomination	Unit of measurement	1949	1952
A. Physical indicators			
I. Indicators of demographical development and employment			
Population	millions	542*	575*
of which:			
urban	millions	57*	72*
rural	millions	485*	503*
Economically active population	millions	244	265
of which:			
urban	millions	24	35
rural	millions	220	230
Employment in material production	millions	237	255
of which:			
in industry	millions	12	15
within industry:			
state-owned large-scale industry state manufactories urban industrial cooperatives village industries communal in agriculture	millions millions millions millions millions	3* 3 3 215	5 3 4 3 220
II. Output of most important products			
a) Industrial products		*	*
hard coal and lignite	mill. tons	32.4	66.5
crude oil	mill. tons	0.1	0.4
electric energy	th mill kWh	4 3	73
cement	mill tons	0.7	29
eteel	mill tons	0.7	1.3
fortilizers (natural weight)	mill tons	0.2	0.2
fortilizora (affactive substance)	mill tons	0.0	0.2
his and modium sized to stance)	mm. tons	0.0	0.0
big and medium-sized tractors	th. units		-
small (nand-operated) garden tractors	th. units	-	-
DICYCles	millions	0.0	0.1
wood	mill. cu. m.	57	11.2
paper and cardboard	mill. tons	0.2	0.5
sugar	mill. tons	0.2	0.5
cotton fabrics	th. mill. metr.	1.9	3.8

Most important indicators showing economic

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1957	1960	1962	1965	1970	1975	1978	1985
	S						
		1					
646*	680*	712	765	830	920*	958*	1040
99*	130*	112	115	120	115	120*	140
547*	550*	600	650	710	805	838*	900
305	320	·310	320	360	385	400*	460
45*	55	45	50	70	85	95*	120
260	265	265	270	290	300	305	340
290	300	295	300	330	355	370	410
19	36	25	30	40	50	68*	100
9* 3 4 3 245	17 5 6 8 240	10 5 5 5 250	14 5 5 6 250	20 6 6 8 260	23 7 6 14 265	25 8 7 28* 260	30 10 20 40 265
*						*	
130.0	335.0	180.0	270.0	410.0	460.0	618.0	800
1.5	5.2	6.8	10.6	28.2	74.3	104.1	160
19.3	47.0	30.0	60.0	115.0	193.0	256.6	400
6.9	10.6	5.6	16.3	26.5	46.9	65.2	100
5.4	13.0	8.0	12.5	17.8	26.0	31.8	50
0.6	2.5	3.0	8.9	14.0	27.9	42.2	100
0.1	0.4	0.6	1.7	2.7	5.3	8.7	19
1.0	23.8	12.0	23.0	70.0	95.0	113.5	200
_	1 - h - h	-		79.0	290.0	324.2	500
0.8	1.5	1.0	1.8	3.6	5.5	8.5	18
27.9	45.0	22.0	27.2	30.0	45.0	51.6	65
1.2	2.1	1.0	2.0	3.0	3.5	4.4	10
0.9	0.9	1.1	1.3	1.5	1.8	2.3	4
51	57	4.0	6.5	9.5	0.0	11.0	10

development in the People's Republic of China

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Denomination	Unit of measurement	1949	1952
b) Agricultural products		Contract -	and a second
cereals	mill. tons	108.1	154.4
sova-beans	mill tons	5.1	9.5
coreals + sova-beans	mill tons	113.2	163.9
rew cotton	mill tons	0.4	1.3
nig livestock	millions	57.8	89.8
pig invisioek	minons	57.0	02.0
B) Value indicators (at 1977 prices)			
I.1 Gross industrial output	th. mill. yuan	10.9	26.7
of which:			
state-owned modern large-scale industry	th. mill. vuan	6.2	16.2
state manufactories	th. mill. vuan	2.2	4.9
urban industrial cooperatives	th. mill. yuan	1.5	3.6
village communal industries	th. mill. vuan	1.0	2.0
. Imperior			
2 Net industrial output	th. mill. yuan	4.6	11.0
of which:			
state-owned modern large-scale industry	th. mill. yuan	2.1	5.5
state-manufactories	th. mill. yuan	1.0	2.2
urban industrial cooperatives	th. mill. yuan	0.9	2.1
village communal industries	th. mill. yuan	0.6	1.1
II.1 Gross agricultural output	th. mill. yuan	42.5	63.1
of which:			
value of cereals production	th. mill. yuan	24.3	35.0
value of cereals production	per cent	57.2	55.5
r	1		
2 Net agricultural output	th. mill. yuan	34.0	49.0
III.2 Net output of other productive branches	th. mill. yuan	5.4	14.7
I.1 + II.1 Combined gross output of industry and agriculture	th. mill. yuan	53.4	89.8
I.2 + II.2 + III.2 National income		-	
(MPS) produced	th. mill. yuan	44.0	74.7
of which:			
share of industry	por cont	10.5	147
share of industry	per cent	77.2	65.6
agriculture	per cent	12.2	10.7
agriculture other production	per cent per cent	77.3	65.6 19.7

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the second s	the second se				the second se		
1957	1960	1962	1965	1970	1975	1978	1985
							~
185.0	137.0	152.0	185.0	230.0	270.0	290.0	363.0
10.0	6.5	8.0	9.5	12.0	15.0	14.8	17.0
195.0	143.5*	160.0*	194.5*	242.0	285.0	304.8*	380.0
1.6	1.0	1.0	1.7	2.1	2.3	2.2*	3.2
145.9	130	110	168	226	270	301.3*	450
61.0	. 92.1	73.5	120.5	209.7	324.0	423.1*	720
12.0	76.1	57.0	100.0	1017	260.0	216.0	120
43.8	10.1	57.8	100.0	101./	200.0	310.0	420
7.2	0.0	0.0	7.0	10.0	20.0	33.2	90
7.0	5.0	7.0	10.0	12.0	27.0	44.0	110
3.0	5.0	2.7	3.5	6.0	17.0	29.9	100
23.7	36.0	30.0	45.0	76.0	110.0	141.5	230
					in the second		
14.7	27.6	22.0	35.0	63.2	82.4	90.4	114
3.2	2.7	2.8	3.0	4.0	7.6	18.8	30
3.8	2.7	3.6	5.0	5.6	11.9	18.5	44
2.0	3.0	1.6	2.0	3.2	8.1	13.8	42
78.7	63.0	62.9	86.2	105.5	131.5	145.9*	210
41.7	30.7	34.2	41.6	51.8	61.0	65.2	81.3
53.0	48.7	54.4	48.3	49.1	46.4	44.7*	38.7
59.0	48.7	47.8	65.0	76.0	90.0	98.5*	126
31.6	32.3	20.0	36.7	48.0	60.0	75.0	146
139.7	155.1	136.4	206.7	315.2	455.5	569.0*	930
			•	•			are in
114.3	117.0	97.8	146.7	200.0	260.0	315.0*	500
-20.7	30.8	30.7	30.7	38.0	423	44.9	46.0
51.6	41.6	48.9	44.3	38.0	34.6	31 2*	24.0
177	17.6	20.4	25.0	24.0	23.1	23.8	30.0
17.7	17.0	20.4	25.0	24.0	23.1	23.0	30.0

Denomination	Unit of measurement	1949	1952
National income used	per cent	100.0	100.0
of which: for accumulation for consumption	per cent per cent	13.4 86.6	15.7* 84.3*
Accumulation found Consumption found	th. mill. yuan th. mill. yuan	5.9 38.1	11.7 63.0
Per capita national income	yuan	81	130
in US dollar at the exchange rate of 1979 (155 Y = 100 \$)	US \$	52	84
Per capita consumption	yuan	70	110
in US dollar at the exchange rate of 1979 (155 Y = 100 \$)	US \$	45	71

Note: The data denoted by \* or the columns denoted likewise are to be directly found in published Chinese sources. All others are results of computations and estimations of the author based on indirect Chinese information. The data of the table have been corrected on the basis of the official Chinese data published till May 1980, so there might be certain differences between them and the numbers given in the text.

thousand million by 1985, that is, it would grow by yearly 12-15 per cent on average between 1979 and 1985. The Chinese wish to compensate at least one-fifth of it, that is, about 5-6 thousand million, with oil and coal deliveries. In my computations, however, the balance of trade would still be short of about 3-10 thousand million, since the value of Chinese exports may rise, during the same period, to about 20-22 thousand million at a yearly average growth rate of 10-12 per cent. Thus, against an aggregate amount of 104-114 thousand million of Chinese exports in seven years a total import of 128-237 thousand million would stand, which means that an aggregate trade gap of 14-33thousand million ought to be balanced partly through financial operations and partly through foreign exhange to be earned outside trade. This would mean such debts as would not surpass the capacity of the People's Republic of China even if she raised further credits, and the cover for which is provided for already in the credit contracts so far concluded. A higher growth rate of imports – of 15-20 per cent – is also conceivable, but that would render the Chinese balance of payments much too tense and difficult to balance by the midand late 1980s.

In this period the share of advanced capitalist countries in China's foreign trade will probably be further increasing, and on the import side it may reach even 70 per cent. Insofar, however, those advocating the preferential development of agriculture would further strengthen their positions within the Chinese leadership and would gradually push to the background the so-called "extremely pragmatic" trend demanding the preferential

sector and the sector of the s	the second se	and the second se						
1957	1960	1962	1965	1970	1975	1978	1985	
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-
23.5* 76.5*	39.6* 60.4	10.4* 89.6	26.0 74.0	34.5 65.5	37.6 62.4	36.6* 63.4	28.0 72.0	
26.9 87.4	46.3 70.7	10.2 87.6	38.1 108.6	69.0 131.0	97.8 162.2	115.3 199.7	140.0 30.0	
177	172	137	192	241	283	329	480	
114	111	88	124	155	183	212	310	
135	104	123	142	158	176	208	346	
87	67	79	92	102	114	134	223	
				1				

development of the extracting and war industries – who would like to achieve the acceleration of China's economic and technical progress mainly with the support of the anti-Soviet imperialist circles opposing détente – such growth in the weight of the advanced capitalist countries would not be necessary. In fact, it may be assumed, since the primary development of agriculture is possible indeed only by holding back the war industries and, generally, the development and modernization of the army, such a guideline of economic development and such economic policy would not leave foreign policy unaffected either, and would work, by all probability, towards moderating the sharp confrontation with the Soviet Union. But, for the emergence and strengthening of such a tendency, in my opinion, first of all an improvement in the general international climate and further progress in détente are needed.

Under such conditions it would become possible for the People's Republic of China and the countries of the socialist community to normalize their relations through expansion of trade and of technical-scientific cooperation among these countries, and also through the restoration and strengthening of relations between economic control organs and various enterprises. This would be all the more important as in the coming years it will be really urgent to carry out a full technological renewal of the production capacities created in the latter half of the 1950s and to replace the existing production capacities. This, of course, would be more easily done through purchases from the original suppliers than through importing entirely different technologies. Therefore, it is supported not only by political but also by economic arguments that it would be useful for the Chinese leaders to revise their foreign policy pursued during the last 20 years and, similarly to the reasonable measures instituted in home economic policy, to take

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adequate measures with a view to halting the present one-sided foreign economic orientation. The countries of the socialist community are ready to normalize and develop their interstate relations with the People's Republic of China, if Chinese leaders prove their serious intentions to this effect and change their unfriendly and even hostile attitude toward their neighbours.

#### References

- 1. Renmin Ribao, 28 June, 1979
- 2. Renmin Ribao, 29 June, 1979
- 3. Renmin Ribao, 30 June, 1979
- 4. HIDASI, G.: China's economy in the early 1970s. Acta Oeconomica, Vol. 9, No. 1, (1972) pp. 81-94
- 5. HIDASI, G.: China's economy in the mid-1970s and its development perspectives. Acta Oeconomica, Vol. 14, No. 4, (1975) pp. 355-381
- 6. Renmin Ribao, 26 June, 1979
- 7. Renmin Ribao, 29 June, 1979
- 8. Renmin Ribao, 13 July, 1979
- 9. Renmin Ribao, 1 December, 1978
- 10. Renmin Ribao, New China News Agency, 3 January, 1978
- 11. Renmin Ribao, 10 September, 1979
- 12. Renmin Ribao, 19 and 30 July, 1979
- 13. Renmin Ribao, 30 July, 1979
- 14. Renmin Ribao, 19 July, 1979
- 15. Renmin Ribao, 27 December, 1979
- 16. Renmin Ribao, 6 October, 1978
- 17. Renmin Ribao, 1 August, 1979
- 18. Economic developments in the Chinese People's Republic. International Currency Review, Vol. 11, No. 3, (1979) p. 50
- 19. Renmin Ribao, 31 July, 1979
- 20. Jingji Yanjiu, 1979. 110. 4, p. 47
- 21. Jingji Yanjiu, 1979. No. 4, p. 51
- 22. The Military Balance, 1978/79. p. 57
- 23. Hongqi, 1979. No. 6, p. 18
- 24. Jingji Yanjiu, 1979. No. 5, p. 9
- 25. Hongqi, 1978. No. 1, pp. 12-13 and 1979. No. 5, p. 4
- 26. SNOW, E.: The long revolution. New York, 1972. Vintage Books. pp. 155-156
- 27. Renmin Ribao, 7 March, 1978
- Chinese economy post-Mao. A compendium of papers submitted to the Joint Economic Committee Congress of the United States. Vol. 1, Policy and performance. Washington, 1978. pp. 738-740
- 29. Renmin Ribao, 7 March, 1978
- 30. China Trade Report, December 1978, p. 2
- 31. Renmin Ribao, 8 March, 1979
- 32. Renmin Ribao, 6 October, 1979
- 33. Hongqi, 1979. No. 6, p. 2
- 34. The China Business Review, July-August 1979, p. 50.

## ЭКОНОМИКА КИТАЯ В КОНЦЕ 70-х ГОДОВ И ПЕРСПЕКТИВЫ ЕЕ РАЗВИТИЯ ДО СЕРЕДИНЫ 1980-х ГОДОВ

## Г. ХИДАШИ

На основании данных, содержащихся в материалах сессии Государственного народного собрания КНР 1979 г. и сообщения Государственного статистического управления КНР о выполнении народнохозяйственного плана на 1978 г., автор дает подробный обзор состояния китайской экономики в настоящее время, ее производительности и уровня развития и указывает на все еще сохраняющиеся диспропорции и узкие места. По расчетам автора, национальный доход КНР в 1978 г. составил около 320 млрд. юаней, что - в соответствии с тогдашним официальным курсом - соответствовало более чем 200 млрд. долларов США. Учитывая, что население страны составляет около 960 млн., национальный доход на душу населения в 1978 г. составил примерно 210 долларов. В 1970-х годах среднегодовой рост промышленного производства составил 8,8%, сельскохозяйственного производства -- 3,1%, а национального дохода -6,6%, что во всех отношениях было ниже средних темпов роста за период 1948 – 1978 гг. Автор считает реально достижимыми на семилетний период 1979-1985 гг. среднегодовые темпы роста промышленности в размере 7-8%, сельского хозяйства – 3-4%, учитывая также усилия, направленные на восстановление нарушенных структурных пропорций. При таких пропорциях среднегодовые темпы роста национального дохода могут составить около 7% и достичь в 1985 г. величины 500 млрд. юаней. По действующему в настоящее время официальному курсу это составляет 324 млрд. долларов, что – если предположить численность населения в 1040 млн. человек - составит национальный доход на душу населения около 310 долларов.

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# ECONOMISTS AND ECONOMIC THOUGHT

# J. KORNAI

# THE OEUVRE OF KENNETH J. ARROW

The Publishers Közgazdasági és Jogi Könyvkiadó of Hungary have been publishing for some years a series of books which present the oeuvre of a Nobel-prize winner economist each. The volume comprising K. J. *Arrow's* selected studies has been edited by the author and he wrote also the foreword, appreciating Arrow's activity. The following article is an English version of this Hungarian foreword. It is concerned mainly with the general equilibrium theory and the theory of social choice. Finally, relying upon his own personal impressions, the author comments on the personality of the Nobel-prize winner scientist.

Richness, versatility and an extreme abundance of original ideas are characteristic of K. J. Arrow's lifework. The narrow specialization, characteristic of many economists, among them some really important scientist, who vary the same subject all their life is entirely alien to him. The theory of general equilibrium, efficiency and decentralization; the economic problems of uncertainty; questions of growth, technical progress, and of intertemporal choice; welfare economics – these are but a few of the main chapters in Arrow's work. With these economic subjects, and, in some of his works reaching beyond his own discipline, he made important contributions also to mathematics, statistics, political science and philosophy.

I shall not attempt to give a comprehensive appreciation of Arrow's entire activity. Instead, I shall confine myself to making a few personal remarks. First, I shall comment on the studies dealing with the *general equilibrium theory* and the *theory of social choice*. If the standards of all of Arrow's works are comparable to a high chain of mountains, his contributions to the above-mentioned two spheres of subjects overlook even those high mountain chains. Finally, I wish to outline some characteristic features of Arrow's scientific profile.

# To the general equilibrium theory

The modern form of general equilibrium theory has become inseparable from the names of *Arrow* and *Debreu*. There are numerous examples in the history of science to show that such naming is to some extent arbitrary, since any important achievement that appears in an accomplished form has been preceded by a great many experiments and half-mature results, short of which it could not have been realized. And yet, there is almost in every case a particularly important contribution to justify why the discovery in

question has been named after this or that secientist. That is exactly the situation with the Arrow-Debreu model.

We have here an intellectual current whose origins go back over two hundred years to Adam Smith. One-hundred years passed until Walras constructed a comprehensive mathematical model of the "invisible hand" coordinating the large number of sellers and buyers. Walras's model already included the most important elements of the Arrow-Debreu model following suit after another eighty years, but its mathematical formalism was not yet exact, and its logical structure not rigorous enough. After him, several scientists were experimenting with the solution of the Walrasian problems. Outstanding results were achieved by two great Hungarian mathematicians: Abraham Wald and János Neumann, and by the economists Cassel (Swedish), Hicks (English), Samuelson and Koopmans (American). A similar model was constructed and similar theorems proved by the American scientist Lionel McKenzie at the same time with Arrow and Debreu, but independently of them. And yet, these numerous preliminaries and similar works notwithstanding, it seems entirely justified to call the modern general equilibrium theory the Arrow-Debreu theory. Arrow and Debreu first started their research work each on his own, but later on they united their forces and published jointly the study that has grown into the "canonical model"\* of the general equilibrium theory. Since then hundreds of equilibrium theory models have been constructed, but each is obviously a mutation of the Arrow-Debreu model.

The Arrow-Debreu model is a perfectly mature, concise, and logically crystal-clear summarization of a hundred years' research work. It is this conciseness and clarity that renders it suited for a starting-point of further experiments and research works, as well as for the most frequently used source of reference.\*\* Arrow and Debreu formulated the questions which they wished to answer with the aid of this model, and, as it is well known, formulation of the question is even more important in the life of a theory than the first answers that will be given. Arrow's studies, as well as his works written jointly with Debreu, Hurwicz and others, clarify first of all the question, whether there exists, with the given structure of the mathematical model, such a state of the market, in which the actors of the decentralized coordination process mutually readjust their demand and supply, and whether there exists, simultaneously, a price system which controls this coordination. The existence proofs are followed by the question, on what conditions the Walrasian equilibrium of the market is stable. Besides, the analysis of the existence and stability of equilibrium has been connected from the beginning with the value judgement of this equilibrium. Is the operation of the system efficient in the state of Walrasian equilibrium? To what extent does it satisfy certain requirements of social welfare? Does

\*Ins striking attribute was given by *Weizsäcker* in his study (1972) appreciating Arrow's work, written at the request of the Nobel Prize Committee.

\*\*The most important and most comprehensive textbook of the general equilibrium theory is the work of *Arrow-Hahn* (1971). The book of *Zalai-Hegedűs* (1978) may serve as a Hungarian language introduction.

it satisfy at least the elementary postulates of welfare, like the principle of *Pareto* optimality? \*

The modern general equilibrium theory rooted in the Arrow-Debreu model constitutes the theoretical core of the neo-classical economic ideas. Neo-classical economics and general equilibrium theory have been subject to sharp attacks in the last decades. It has been criticized – on the theoretical plane – because its assumptions and its way of posing questions are alien from real life.\*\* It has been critized – on the political and ideological plane – for its social sterility, that is, for the abstraction from conflicts of social classes and groups, from ownership, from the problems of income distribution, etc.

I am myself among the critics of the general equilibrium theory. I still feel justified in my criticism expounded in my book "Anti-Equilibrium". At this place I do not wish to repeat what I said there. The question may be asked, whether it is not an inconsistent attitude to sharply criticize in my book the modern general equilibrium theory and to promote as editor of the present volume, the spreading of the same theory.

In my opinion there is no inconsistence became I do not expect that any of the readers of "Anti-Equilibrium" should believe me or any other critic of the neo-classical theory blindly without their own careful consideration. They should first get acquainted directly with the theories criticized. They should themselves confront them with the criticisms (not uniform themselves, but stemming from different viewpoints), and then form their own opinion. Scientific truth does not need the protection of a publication monopoly. Instead, we must trust the reader's intelligence and judgement. If conflicting scientific views are allowed to clash, it will make it easier to find the truth; it will help economists – first of all young people and students – to grasp problems and to think independently.

This would be in itself a sufficient argument for the publication of Arrow's works on the general equilibrium theory in Hungarian. But, beyond this educational effect, and beyond the personal aspects of the problem, we must answer the question: what can be the importance of getting acquainted with the Walrasian theory in the development of today's Hungarian economic thinking? Without aiming at completeness, I shall point out a few of its important functions here under.

\*The Walrasian market is in a Pareto-optimal state, if it cannot be changed any further in such a way that the welfare of at least one consumer should grow, without impairing at the same time that of others. In a given system there exist usually an infinite number of Pareto-optimal states according to the various possible distributions of wealth and income.

\*\*Among those critizing an outstanding role was played by the Cambridge economists (England), who set forth their ideas relying upon the theories of *Ricardo, Marx, Keynes, Kalecki* and *Sraffa*. (See e.g. *Kaldor*'s article (1972) on the irrelevance of the equilibrium theory, or, for a summary, the textbook of Joan *Robinson* and *Eatwell* (1973).

In the USA from among the radical criticisms of the neo-classical school the works of *M. Hollis-E. Neill* (1975) and *B. Ward* (1972) are remarkable.

From the Hungarian literature the book of Péter *Erdős* (1976) (Chapter II) and the history of theory of *Mátyás* (1973) are called to attention.

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1. The Walrasian economic theory has deeply infiltrated the mind of every economist of our time. Those who follow other schools, or even hold exactly opposite views are also affected by the neo-classical school; if in no other way, at least with its conceptual framework, whose many elements we all use, or with its way of posing questions which we ourselves try to answer, or with its theorems which induce us, if to no other things, then at least to trying to refute them.

If we do not agree with some theory, the cheapest form of opposition is to neglect it. Seeing such neglect, one cannot be sure even if discarding some theory is not simply due to the ignorance of the "critic"; he spared himself the trouble of getting acquainted with the rival theory or was unable to understand it. No economist can be called educated and well-versed in his own branch of science who does not know thoroughly the general equilibrium theory and does not make it clear to himself, what his own relation is to this theory. It is, therefore, not a negligent "discarding", but a well-accomplished, critical and constructive surpassing that is necessary.

On my part, I cannot accept the view that the Walrasian theory is a summarizing, comprehensive, total and universal economic systems theory. (By the way: Arrow's works never place the general equilibrium theory on such a high pedestal.) This is a very *special* theory, the theorems of which are verifiable only with certain restrictive assumptions. There exists, however, such a limited sphere of market phenomena which it helps to understand. That is one more reason why — beyond its role in the history of economic thought — it should find its place among the explanatory theories of economics.

2. The Walrasian system in its deterministic form as it appears in the first Arrow-Debreu models is the world of perfect adjustment. Every decision-maker displays a strictly consistent attitude, which is expressed in certain properties (transitivity, etc.) of his preference ordering. Actions are promptly adjusted to signals; there is no friction and no lag. Information is transmitted exclusively through prices. As a result of perfect adjustment, in the state of Walrasian equilibrium there is no excess demand for anything or anywhere.

Reality is never so "perfect". Yet this pure theoretical structure, owing exactly to its "perfection", seems to be suitable to serve as an *abstract frame of reference*. The Walrasian system and its specific form: the Walrasian market equilibrium may play a role similar to that of the absolute zero point in physics.\* Every real physical body has a temperature higher than the absolute zero which cannot be reached by any real cooling. This absolute zero – existing only abstractly but well defined theoretically – may serve as an adequate starting-point of a measurement scale. In the same way, real economic systems can be aptly described by starting how far they live – in respect of some of their properties – from the Walrasian system and from the Walrasian state of equilibrium. How frequent and how intensive is shortage on the different markets; what is the degree of underutilization of resources and what size is the surplus accumulated from products; what is the role of non-price information, etc. We can elucidate the essential features of

\*I borrowed this analogy from the study of Siven-Ysander (1973).

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an economic system by observing and measuring to what extent it deviates from the Walrasian point of reference.

3. Arrow as well as other outstanding representatives of the general equilibrium theory elaborated operative analytical tools. The theory of convex sets, fixed point and duality theorems of mathematical programming, examination of stability of differential equation systems, theory of optimum processes, etc. — these are a few examples of the many kinds of mathematical formalism which this school borrowed from mathematics to use and interpret them for the purposes of economic analysis. The same tools prove useful also in the hands of those who use them on a non-Walrasian basis of economic theory. True, all of them may be found also directly in mathematical literature. Yet it would not be fair to deny the fact that most of those who use these mathematical tools for non-Walrasian models have become acquainted with them through the neo-classical school. At least it was the latter that called attention to these tools and it was only *afterwards* that the primary source, that is, the mathematical literature was consulted.

4. I have left it to the end, though for me it is perhaps the most important thing: the modern mathematical general equilibrium theory represents a *challenge* for those who wish to follow another way. When Ricardo and Malthus argued with one another, it was still enough to use against a good argument a better one. I am afraid this is not enough any more. The technical armoury of the neo-classical school is extremely modern and of high standards. Their best works are characterized by an axiomatic deductive reasoning, and rigorous proofs of the theorems. Many young economists having thoroughly learnt mathematical economics at the university feel that they cannot be convinced but by new theories equipped with a similar armoury. However heroic attitude it may be, one cannot hold out with a rifle against a tank.

Koopmans said in one of his studies that a great dilemma of today's economist was the choice between *rigour* and *economic content*. Well, the modern general equilibrium theory can be blamed justly for sacrificing a lot of economic content in favour of rigour. Those who criticize the Walrasian theory and try to elaborate theories closer to reality may temporarily console themselves that what they have given up in rigour they have gained in better economic content. Sooner or later, however it has to be achieved that the improvements in economic content should be accompanied by scientific rigour. I do not deny that, when reading Arrow, it is difficult not to feel some envy. I wish we had reached a point where we could describe with Arrow's lucidity, discipline, conciseness and logical sharpness the interdependencies that we try to explain with theories differing from the Walrasian one.

# To the theory of social choice

While the previously treated subject, the general equilibrium theory, had a long list of names preceding Arrow, we shall now go on to discuss a work that burst almost without any precedent into the world of philosophy, political science and economics. Since *Pigou* and *Bergson* the reassuring feeling had spread that, with reasonable assumptions, a "welfare function" can be constructed which, if maximized, allows to determine a plan of action serving the individual interests of the members of society in the best possible way. Arrow's perplexing discovery shattered the foundations of this argument.

Before making my comments, I shall try to outline the problem in a much simplified form. A community is given: a small group, an association, a town or perhaps a whole nation. There are *alternative social actions* possible for the community. The members of this community have definite *individual opinions* about the alternatives of social action. (Thus, not only about their own possible actions, but also about the alternative actions of society.) This is expressed in the form of individual preference orderings. Individual 1 prefers social action A to B and social action B to C, while individual 2 prefers B to A and C to B, and so on.

The community has a fundamental rule: a constitution. If we want to picture ourselves the "constitution" of Arrow's mental experiment, we should not think of the Magna Charta or the fundamental laws of states ceremoniously approved by today's parliaments. It is not excluded, but neither inevitably necessary, that Arrow's constitution should be laid down as a legal rule or law. It is a social process which selects from among alternative social actions by relying upon individual opinions. Let us think of an algorithm or a series of instructions prescribed for an electronic computer. We feed into the machine, as input of the computation, the individual opinions and, as output of the computation, the social decision is obtained, that is, the valid choice from among the alternative social actions. The constitution is the algorithm that determines the "output" from the "input", that is, the social decision from individual opinions. "Social decision" can be made in large or small communities, in political, economic, social, cultural and military questions. A social decision may be: setting a curriculum for a school by the teaching staff, the determination of tactics by a football team for the next match, or the drawing up of a five-year plan for the whole of the national economy. In the Arrowian sense "constitution" means the process through which such a decision is born. As we can see, the categories of Arrow's model are extremely general and apply to any kind of social choice.

A million kinds of algorithms or "constitutions" are concervable. For example, we consider exclusively, which alternative has been put on the top of his ranking by each individual. Thereafter that alternative becomes a social decision which the most individuals put on the top. For example, in the case of three alternatives, 40 per cent of the population has put alternative A on top, and 30-30 per cent put as first alternatives B and C respectively. Maybe 70 per cent of the population has put alternative of the population has put alternative becomes a social decision.

Let us see another example. Each individual has to weight the alternatives; let the total of the weights be 1. Person 1 gives the alternative A a weight of 0.4, the alternative B 0.38, and the alternative C 0.22. That alternative will become the social decision which has been given the largest part of the "total weight". It may easily happen that although A has taken the first place with most individuals, it will be B that becomes socially accepted in the case of a "weighted" voting.

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A third constitution: social decision is formed exclusively upon the basis of individual opinions of a certain group of the community, while the opinions of others are excluded from the process of social decision.

The examples have been quoted to bring nearer to the reader the abstract category of Arrow's "constitution". Arrow himself is, however, not concerned with taking in turn each different type of constitution and comparing them with one another. He discusses the problem on a much more general level. He asks the question: what general conditions should be satisfied by every constitution? These are such minimum elementary desiderata the fulfilment of which, according to Arrow, is to be expected by all means. If the constitution fulfils them, it may still be "good" or "bad"; it may satisfy or leave unsatisfied further and more specific desiderata which are not treated in this work of Arrow's.

He sets up altogether four elementary conditions. Two of them are concerned with the *logic and rationality* of the choice. (1) The principle of *transitivity*, asserted in Arrow's model in the individual preference orderings, should be asserted also in the social choice. That is, if society prefers A to B, and B to C, it cannot prefer C to A. (2) The choice cannot depend upon a preference ordering that relates to alternatives irrelevant for the social decision in question. If, therefore, society now makes its choice from among A, B and C, the decision cannot depend on whether it prefers D or E.

The other two conditions are of *political-ethical* character. (3) The Pareto principle (at least in its weak form) should be asserted. If choice must be made between A and B, and some of the community definitely prefer A to B, while others are indifferent in regard of this choice, A should become the social choice. (4) No personal dictatorship may assert itself. Social decision cannot fit in automatically with the individual opinion of one single member of society.

All four conditions seem to be sound in themselves. Arrow surprised his readers by proving that it was impossible to find a constitution which would be able to satify all four conditions simultaneously. It must violate at least one.

Arrow's "impossibility theorem" is a rigorously proved statement within the given model: its logical truth is indisputable. It is a structure fascinating everyone who is able to feel intellectual pleasure at the boldness of abstraction, the new and original generalization, and the discipline of reasoning. Arrow may have been the first one to use the apparatus of mathematical logic for the verification of a socio-economic theorem.

What has become immediately a subject for discussion while intellectual achievement was unanimously recognized, is the justification of Arrow's assumptions. Is the description of each element upon which Arrow's model is built acceptable (individual opinions, the process of social decision, etc.)? Is it justified to demand the fulfilment of exactly these four conditions? Although the literature on the question has grown vast since Arrow's ingenious study, and many have brought forward models formulated otherwise, and other sets of conditions, nobody has doubted that we are faced here with real internal contradictions of the social decision processes. It is difficult – perhaps even

impossible – to coordinate rigorous logical consistence with the assertion of certain political and moral criteria.

The problem has no literature in Hungarian. We must admit, feeling a little ashamed, in what superficial way we usually think of the problem. All of us have said or written that "there is contradiction between the individual and social interests", or that "individual and social interests must be coordinated", or "social decisions must reflect public opinion", and so on. We participate in collective bodies and committees which make decisions according to some fundamental rule: by simple majority, or by some other process. But we never ask ourselves the question: what does the expression "social interest" mean? What are exactly the mechanisms – using Arrow's expression: the "constitutions" – that shape social decisions? What is the relationship between social decision processes, what conditions do they satisfy and what *desiderata* do they not fulfil? Even though a few works are found on the subject, philosophers, mathematical logicians, political scientists and economists have accumulated a sizable "debt".

I wish to risk a single comment on Arrow's impossibility theorem. I think that the literature on the subject has remained, rather one-sidedly, with the abstract theoretical examination of the question. And yet it is worth paying serious attention also to the *empirical testing* of Arrow's model and of the theorem deduced therefrom. To what extent do *real* social decisions satisfy Arrow's four conditions (or other conditions, that replace, or complement them)?

After due reformulation the theoretical theorem can be formulated as an observable, measurable, and empirically testable, hypothesis. I have never done any systematic data collection on this subject, though I had collected a certain amount of experience, mainly in the sphere of planning. From that I would draw the conclusion that real social decision processes leave Arrow's set of conditions actually unsatisfied.

I wish to lay particular stress on condition (1) which Arrow called "collective rationality". As for me, I doubt if *individual* behaviour is "rational" in the neo-classical interpretation of the word. In the series of individual actions inconsistence, and a frequent violation of the transitivity principle and of some other postulates of "rational behaviour" are observable. *Social* decisions seem to be even less consistent. If often happens that a decision-making body today prefers A to B, tomorrow B to C, and after-tomorrow C to A. In observing the series of consecutive and comparable decisions we can see *vacillation* — in a better case experimentation, and in a worse one simply inconsistence.

My comment should be considered rather as a conjucture, its verification would require systematic observation. It would be useful if the first Hungarian publication of Arrow's social choice theory encouraged our sociologists to carry out a thorough theoretical and empirical investigation of the problem.

#### J. KORNAI: THE OEUVRE OF KENNETH J. ARROW

## To the portrait of Arrow, the scientist

What has been said so far already makes clear a few of Arrow's characteristic attributes; I wish to complete them by relying partly upon personal impressions. I had the luck of having been invited by Arrow to work for a few months in 1968 at his institute in California, where I had the opportunity, through work and conversation, to get to know him, as a researcher, a scientific leader and as a human being.

We know the type of scientist who deals with very few questions but with these profoundly and extensively. And we know the other type of "semi-scientist", the universal dilettante who deals with many questions but superficially with all. Arrow is the rare exception who is able to deal with numerous subjects and with all of them profoundly, and in an original way. He is able to do so because he has a particularly fast and intensive intellect. I have not met anyone whom the expression would suit better: "he has an incisive intellect". He talks very fast, and yet one who listens to him feels that his thoughts are even faster and his words can hardly keep up with the stream of his ideas.

More than one of his studies are *extremely abstract* analyses. However, to complement the speculative and deductive intellectual work, he reverts repeatedly to *the timely and practical questions of everyday life*. He wrote studies about public health, industrial inventories, the profitability computations of state investments, and the problems of university education. Most of his works are formulated in the mathematical language, but he is able to express his thoughts also in simple prose, clear to all. Although he is not in the frontline of political fights, he does not keep away from public affairs. He was among those who protested against US intervention in Vietnam, and against racial discrimination.

He is not only a researcher, but a *teacher* as well. He passes on his knowledge in many different ways. Several of his one-time students are today renowned mathematical economists. He invites American and foreign scientists regularly to his institute, who gain inspiration from the conversations with Arrow and his colleagues. Arrow frequently organizes conferences and lectures which always exert far-reaching effects on economics.

In Arrow's attitude there is no trace of the self-satisfaction of the "great scientist". He has a sense of humour and is full of playful irony. When he had read the first manuscript of "Anti-Equilibrium", I felt embarrassed and anxious in preparing myself for the conservation with him that was to follow. Our talk, however, quickly dissipated all my anxiety. Arrow encouraged me to publish my work by all means, and went so far as to dissuade me from rendering its style smoother or more diplomatic. He mentioned that probably at the same time with my work his manual written jointly with Frank *Hahn* would be published. As for the latter, he remarked with self-irony: it will probably become the tombstone upon the grave of the general equilibrium theory . . . And, after reading carefully the first, then the revised version of the manuscript, he gave me a lot of creative advice, as to how to make the formulation more exact and avoid misunderstandings. These gestures of Arrow may serve as examples of how an opposite opinion can be not just tolerated, but even encouraged and supported.

I sincerely hope that Arrow's works will stir up Hungarian economic thinking. I am sure that he would be best pleased if he were informed that his works are not only read in Hungary but also discussed and commented, vindicated and criticised.

## References

- 1. ARROW, K. J.-HAHN, F.: General competitive analysis. San Francisco, 1971. Holden-Day.
- ERDŐS, P.: Bér, profit, adóztatás (Wages, profit, taxation.) Budapest, 1976. Közgazdasági és Jogi Könyvkiadó, soon to be published in English.
- 3. HOLLIS, M.-NELL, E.: Rational economic man: a philosophical critique of neo-classical economics. London-New York, 1975. Cambridge University Press.
- 4. KALDOR, N.: The irrelevance of equilibrium economics. Economic Journal 1972. Vol. 82, pp. 1237-1255
- 5. MÁTYÁS, A.: A modern polgári közgazdaságtan története (History of modern bourgeois economics.) Budapest, 1973. Közgazdasági és Jogi Könyvkiadó.
- 6. KORNAI, J.: Anti-Equilibrium. Amsterdam, 1971. North Holland/American Elsevier.
- 7. ROBINSON, J.-EATWELL, J.: An introduction to modern economics. London, 1973. Macmillan.
- 8. SIVEN, C. H.-YSANDER, B. C.: Critique of János Kornai "Anti-Equilibrium". Swedish Journal of Economics, 1973. Vol. 75. p. 315-319
- 9. WARD, B.: What's wrong with economics, New York, 1972. Basic Books.
- 10. WEIZSACKER, C. C.: Kenneth Arrow's contribution to economics. Swedish Journal of Economics, 1972, pp. 488-502
- 11. ZALAI, E.-HEGEDÚS, M.: Fixpont és egyensúly a gazdasági rendszerekben (Fixed point and equilibrium in economic systems) Budapest, 1979. Közgazdasági és Jogi Könyvkiadó.

#### НАУЧНАЯ ДЕЯТЕЛЬНОСТЬ КЕННЕТА ДЖ. ЭРРОУ

#### Я. КОРНАИ

В прошедшие годы венгерское Издательство экономической и юридической литературы опубликовало серию книг, представляющих деятельность экономистов лауреатов Нобелевской премии. Том избранных трудов К. Дж. Эрроу был подготовлен к печати автором данной статьи, написавшим также предисловие к нему. Настоящая статья представляет собой перевод этого предисловия (с небольшими изменениями) на английский язык.

Первая часть статьи посвящена общей теории равновесия. В ней дается обзор исторических предшественников теории, начиная от Смита и Вальраса до деятельности Эрроу и Дебре, создавших фундамент современной математической теории равновесия. Автор излагает вопросы, на которые желают дать ответ исследователи, а затем упоминает о резкой критике их теории, в том числе и о собственной книге «Антиравновесие». Знать общую теорию равновесия необходимо и тем, кто не согласен с ее основными положениями и выводами. Она представляет вызов к повышению уровня исследований и строгости анализа для тех, кто стремится разработать экономическую системную теорию, стоящую на не-вальрасовской основе.

# J. KORNAI' THE OEUVRE OF KENNETH J. ARROW

Вторая часть статьи знакомит и комментирует одно из выдающихся теоретических новшеств Эрроу — теорию общественного выбора. Эрроу называет «конституированием» общественный процесс, который – исходя из индивидуальных ценностных оценок – формирует имеющее силу социальное решение. Он формулирует четыре условия, которым должно соответствовать любое «конституирование». Два из них содержат принципы рационального выбора, а два других – политико-этические постулаты. С математической точностью доказывается, что невозможно найти такое конституирование, которое одновременно удовлетворяло бы всем четырем условиям. Известная «теорема невозможности» Эрроу вызвала широкие дискуссии. Она побуждает исследователей более глубоко продумать свои взгляды об отношении личного и общественного интереса, личного менения и общественного решения, сложившиеся нередко на основе поверхностных соображений.

В заключение автор на основании своих личных впечатлений рисует портрет Эрроу – ученого и человека.



Acta Oeconomica Vol. 23 (1-2), pp. 205-224 (1979)

# REVIEWS

#### **B. BARTA**

# SOCIAL SERVICES IN HUNGARY IN THE LIGHT OF INTERNATIONAL DATA

Social services are in particular those unrelated to economic activities and which are typically not of the commodity type (e.g. health, social insurance, social educational, cultural, scientific, administrative services and the like). In the general sense also some activities are social services which are often associated with economic activities yet are fixed to some location with respect to distribution, and the way and feasibility of providing them require social attendance. Housing and public utility services belong to this type.

Acceleration of technical progress certainly has powerful influence upon changes in the scope of social services. The contents of the notion are therefore not constant but subject to changes over shorter or longer periods of time. It should be noted here that beside the technical development level of settlements growing attention has to be paid now to services designed to prevent or combat environmental pollution. In the course of development some services evidently loose in importance and new ones emerge. Still, from the point of view of the individuals who constitute society, the scope of social services will always be of determinative and cardinal importance in spite of its continuous changeability.

The output value of social services cannot be determined according to the principles of the value-proportionate prices thus, in most of the cases, the only standard by which it is measurable is input. Internationally, the actual effectiveness of social services might strongly differ even with identical inputs because of the fluctuations in efficiency and the extent of availability. So there is no other way but to use for comparison demographical, publich health, cultural, etc. indicators expressed in physical units of measurement.

The group of social services entails a multitude of such services. This attempt at trying to determine the position of Hungary especially among European countries and in this context among the socialist countries is limited to quoting some indicators expressed in physical units of a few services (namely health, education and culture, social insurance, housing). In some cases Hungary's position in comparison with countries in other continents will be also shown.

#### REVIEWS

## Health services

Many countries realized already in the middle of the last century that health services improve the working capacity of the people and also serve the reproduction of manpower. Once the importance of public health has been recognized this service became a state-sponsored task and was drawn into the scope of social insurance. Therefore, the indicators of public health are satisfactory indicators also of the standard of living. Most countries work out these indicators thoroughly and they are thus suitable for international comparison.

State sponsoring of the health service began also in Hungary at the same time when other European states started it. In 1938, the last peaceful year before the second war, it was bearing all the marks of the social system of the times. Physicians of different insurance companies and institutions attended to part of the population but there was no scheme for the organized medical attendance of the rural population engaged in agriculture, who were the majority of the population. The major health supply indicators (number of hospital beds per ten thousand people etc.) were consequently worse than the average of the economically developed European countries. The general mortality rate for TB represented one of the European records. The very high infant mortality rate (around 130 per mille) was an expression of the poor social circumstances of the bigger part of the population.

The first four or five post-war years were taken up by reconstruction of war damages and the prevention of epidemics. Through intensive development the number of *hospital beds* was brought up to the 1938 value by 1950 and epidemics were eliminated. In 1951 the Ministry of Health was set up, public health became an entirely governmental issue and the period of planned development of public health services was started.

A large-scale education and training project was launched in medicine. As a result by the end of the 1950s Hungary attained the level and by the end of the 1960s she even surpassed that of almost every country and with respect to the supply of the rate of physicians she occupied the 3rd place in the world list. Although the rate of medical education was slightly moderated at the beginning of the 1970s, the number of people per one doctor is less than 400 (374), a value which is better than in most European countries.

Supply with *dentists* is not as good and is below the average of the advanced countries. Free medical care which is a right by citizenship covers dental treatment too and the state scheme is not yet capable of meeting the growing needs. Therefore, there is extensive private practice in this field. It is scheduled for the fifth five-year plan (1976-1980) and especially for the sixth one (1981-1985) to step up the rate of training in dentistry.

The supply with *pharmacists* corresponds to the European standards, the indicator of inhabitants per one pharmacist (2460) is considered to be satisfactory and this requires to maintain the actual level of training in pharmacology.

#### REVIEWS

The intensive development carried out in the 1950s with respect to hospital beds was followed from the early 1960s on by a stage of extensive development and a number of new hospitals were built. In spite of these developments the number of inhabitants per one hospital bed is discomfortingly high (120) relative to the advanced capitalist countries and its level has been practically stagnating since 1970. To remedy this situation, the government adopted a long-term hospital development project which was given priority even over the housing programme. The building of rehabilitation hospitals to care for people suffering from chronic and lengthy diseases is particularly underlined in the development project.

In Hungary, like in the advanced countries, the major *causes of death* are by order of frequency the following: heart diseases, malignant tumors, cerebral blood-vessel disorders, and accidents (1970–71 and 1974–75 data are given in Table 2). We succeeded in reducing the high tuberculotic mortality, which used to be so typical of Hungary prior to World War II, to the European level by 1975 and tuberculosis will be soon perfectly eliminated. The trend of ageing of the population working toward more frequent heart and circulatory cases as well as toward higher mortality from malignant tumors has an unfavourable influence upon the general mortality rate.

Infant mortality in Hungary has been gradually reduced along with the improvement of public health conditions but the rate of decrease was slower than in the surrounding European countries. In 1975 only Romania, Portugal and Jugoslavia recorded higher values than Hungary (32,8 per mille, see Table 3). Between 1970 an 1975 mortality per one thousand live-born infants decreased only by a minimum (to  $31^{0}/_{00}$ ), but in the last three years there has been an acceleration in the rate of decrease and in 1978 infant mortality was 24.6 per mille. However, compared to advanced European countries this indicator is still rather disadvantageous, particularly because of the high rate of premature births (11 per cent) which also indicates what the future tasks should be.

# Schooling

In raising the *educational level* of the population Hungary has attained appreciable achievements in the last 30 years. Implementation of the compulsory schooling act, then the raising of the period of compulsory schooling from 8 to 10 school years in 1961 are to be noted in the first place. Hungary belongs to the seven European countries stipulating the longest schooling time.

As a result of these rules now more than 90 per cent of the population of each cohort accomplish eight forms of primary education. This rate hardly attained 20 per cent in 1930s.

The favourable rate of students in secondary schools shows the demand for learning after the compulsory school years: about two-thirds of those belonging to young age groups acquire some secondary school leavers and sit for examination for the general

	Number of inhabitants per one								
Country	phys	ician	der	dentist		pharmacist		hospital bed	
	1970	1975	1970	1975	1970	1975	1970	1975	
Austria	540	480	4.060	5.140	2 810	2 600	90	90	
Belgium	650	530	5.050b	4 310	1 420b	1 270	120	110°	
Bulgaria	540	460	2,730	2 360	3,560	2,850	130	120	
Czechoslovakia	480	420	3,190	2,300	2 680	2,000	100	100	
Denmark	690 <sup>a</sup>		1.360	2,000	2 470	2,450	100	100	
United Kingdom <sup>f</sup>	820 <sup>a</sup>		3,710	3.460c	3,330	3.610°	110	120C	
Finland	980	700	1.740	1.450	1 020	960	80	70	
France	750	680	2.420	2.090	1,990	1 740	140	100d	
Greece	620	490	2.000	1,530	1,550	1,110	160	150	
The Netherlands	800	630	3.870	3,140	12 330	11 410	90	1000	
Yugoslavia	1.010	850 <sup>c</sup>	4.390	4,410 <sup>c</sup>	5 660	5,050°	180	170	
Poland	660	581	2,390	2,130	2 640	2350	130	130	
Hungary <sup>g</sup>	550	500	4.882	4 296	2,500	2,350	120	120	
German Democratic Republic	630	540	2.320	2,180	5,910	5 520	90	90°	
Federal Republic of Germany	580	520 <sup>c</sup>	1.970	1.960 <sup>c</sup>	1.800	2,230°	90	80	
Norway	720	580	1.160	1.090 <sup>c</sup>	2,970	2,790a	90	70	
Portugal	1,100	790	133,580	17,920	3 390	2,880	160	170	
Romania	840	810 <sup>d</sup>	5.060 <sup>a</sup>	3.940d	4.320	4,070d	120	110°	
Spain	750	640	10.050	10,290	2,120	1 910	220e	190d	
Switzerland	700	560	2.500	2,480	2,120	1,510	90	90d	
Sweden	730	620 <sup>c</sup>	1.200	1.140 <sup>c</sup>	2,490	2 250°	70	700	
United States	630	610 <sup>a</sup>	2,000	1.970 <sup>c</sup>	1.580	2,200	130	150	
Canada	690	580	2 840b	2,650°	1 920b	1 690C	100	110C	

Table 1

Major international per capita health indicators

<sup>a</sup>Based on estimates <sup>b</sup>1971 data <sup>c</sup>1974 data <sup>d</sup>1973 data <sup>e</sup>1968 data <sup>f</sup>public hospitals only <sup>g</sup>including beds durably out of use and beds in maternity centres *Source:* World Health Statistics Annual. WHO publication volumes 1974 and 1978

Table 2 International data of the most frequent causes of mortality<sup>a</sup>

			Mor	tality rate per	100.000 inha	bitants		
Country	Heart disease		Malignant tumors		Cerebral blood-vessel disorders		Accidents	
	1970-71	1974-75	1970-71	1974-75	1970-71	1974-75	1970-71	1974-75
Austria Belgium Bulgaria Czechoslovakia Denmark United Kingdom Finland France Greece The Netherlands Yugoslavia Poland <i>Hungary</i> German Democratic Republic Federal Republic of Germany Norway Portugal Romania Snain	366.9 329.4 <sup>f</sup> 230.6 322.7 <sup>f</sup> 340.3 386.4 337.3 207.6 159.3 253.2 180.2 192.9 <i>373.0</i> 386.4 314.6 326.7 163.9 314.7 190.8 <sup>f</sup>	390.9 312.1 268.0 327.4 355.9 398.1 354.2 214.2 172.6 253.9 213.7 203.0 <i>361.3</i> 394.3 334.8 333.0 158.0 291.5 185.0	260.1 240.3 <sup>f</sup> 132.5 201.7 <sup>f</sup> 221.9 239.5 165.9 206.3 130.0 194.7 98.3 143.6 224.6 217.9 231.4 186.1 130.7 119.9 132.5 <sup>f</sup>	257.5 251.6 141.3 204.1 239.0 250.0 178.8 228.2 154.8 215.4 111.7 156.6 246.4 224.8 251.0 191.0 130.2 128.3 146.3	198.3 170.3 <sup>f</sup> 187.1 154.7 <sup>f</sup> 107.1 163.8 127.7 146.3 116.1 91.9 77.2 42.0 <i>170.4</i> 94.0 173.4 157.4 206.1 130.8 119.8 <sup>f</sup>	192.4 195.4 212.6 166.5 95.6 160.2 112.6 145.8 140.6 92.7 89.7 52.9 <i>172.5</i> 93.4 168.4 149.5 228.9 127.8	78.5 <sup>b</sup> 66.0 <sup>f</sup> 40.7 62.4 <sup>f</sup> 50.4 <sup>c</sup> 35.3 <sup>b</sup> 58.2 <sup>c</sup> 74.3 38.9 49.4 <sup>b</sup> 41.8 <sup>c</sup> 44.6 <sup>c</sup> 54.4 <sup>c</sup> 56.7 <sup>c</sup> 63.6 51.0 44.4 <sup>b</sup> 55.0 <sup>e</sup> 36.6 <sup>f</sup>	72.6 62.4 41.3 59.0 37.1 32.2 56.9 72.6 39.6 39.1  52.1 60.3 58.0 e 52.9 50.4 63.2 55.0 e
Switzerland Sweden United States Canada	260.4 377.8 356.0 <sup>d</sup> 260.4	273.7 414.2 352.5 261.0	196.5 203.2 161.8 129.8	212.3 240.4 172.9 137.7	105.8 105.5 101.6 73.7	105.3 119.2 98.1 73.3	61.1 43.9 <sup>c</sup> 56.0 <sup>c</sup> 53.2	49.2 47.9 49.5 57.5

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<sup>a</sup>International Classification of Diseases, Revision 1965, list B <sup>b</sup>in 1970 <sup>c</sup>in 1969 <sup>d</sup>without B25, B26 (acute rheumatic fever and chronic rheumatic carditis) <sup>e</sup>estimated data <sup>f</sup>1969 data *Source:* See Table 1

REVIEWS

## Table 3

International data on infant mortality

Country	Mortality per one thousand live-born infants <sup>a</sup>			
	in 1970	in 1975		
Austria	25.9	20.5		
Belgium	20.5b	16.2		
Bulgaria	27.3	23.1		
Czechoslovakia	22.1	20.9		
Denmark	14.2	10.4		
United Kingdom	18.2	16.0		
Finland	13.2	11.0		
France	18.2	14.7		
Greece	29.6	24.0		
The Netherlands	12.7	10.6		
Yugoslavia	55.5	39.9		
Poland	33.2	24.9		
Hungary	35.9	32.8		
German Democratic Republic	18.5	15.9		
Federal Republic of Germany	23.6	19.7		
Norway	12.7	11.1		
Portugal	58.0	38.9		
Romania	49.4	34.7		
Spain	28.0	18.7		
Switzerland	15.1	10.7		
Sweden	11.0	8.3		
United States	19.8 <sup>b</sup>	16.1		
Canada	18.8	15.0		

<sup>a</sup>Mortality within one year after birth <sup>b</sup>Estimated data Source: Demographic Yearbook (Központi Statisztikai Hivatal), Volumes 1971, 1976 and 1977

school-leaving certificate.\* In the pre-war years less than 10 per cent of a cohort acquired that degree.

9 to 12 per cent of each cohort enrolls in higher education. In the 1930s undergraduates amounted to 2-3 per cent of a cohort.

At present about a fifth of the population and much more than half of those aged 5 to 24 years participate in formal education, including students in evening and correspondence courses. In this respect Hungary is about on a par with Austria and takes the 12th place among 18 European countries.

\*Called after the German system "maturity" - translator's note.
# Table 4

Country	Number of upper ten thous	ndergraduates and inhabitants	
	in 1970	in 1975	
Austria	80	128	
Belgium	127	162	
Bulgaria	117	146	
Czechoslovakia	91	105	
Denmark	154	219	
United Kingdom	108	128	
Finland	130	166	
France	158	196	
Greece	87	125	
The Netherlands	177	212	
Yugoslavia	128	185	
Poland	123	170	
Hungary	78	102	
German Democratic Republic	178	225	
Federal Republic of Germany	83	136	
Norway	129	166	
Portugal	58	91	
Romania	75	78	
Spain	67	152	
Switzerland	82	99	
Sweden	176	196	
United States	415	523	
Canada	230	359	

International rates of undergraduates

Source: Statistical Yearbook, volumes 1975 and 1977. Published in 1976 and 1978 by the United Nations Educational, Scientific and Culture Organization, Paris

In addition to formal education an increasing number of professional courses are organized at work-places for both manual and white-collar employees, and through these further broad masses are involved in learning.

The general educational level of the population is on the whole still not better than medium because of the low standard of the aged. Thus in 1975 33 per cent of those aged 25 or more had completed primary school, 11 per cent had general school-leaving certificates and 5 per cent graduated from institutions of higher education.

With these schooling standards Hungary is in the middle of the list of 18 European countries. The rate of secondary school-leavers is relatively low but her position is more favourable with respect to graduates where Hungary is a close 8th after Poland, Belgium and Bulgaria.

The network of the institutions of public culture\* is called upon to expand and complement the knowledge given by the schooling system (see Table 5).

*Television* began to spread in Hungary after 1958. During the last 20 years the number of subscribers to television has increased rapidly. In 1975 it was 223 per 1000 inhabitants. This rate qualifies Hungary for the 12th place among 20 European countries. Right before Hungary are Norway, Belgium, Czechoslovakia and the other socialist countries, and then Italy, Potugal, Spain and Greece follow.

Most families in Hungary have radio receivers and in most cases more than one set. By the rate of subscribers per 1000 inhabitants Hungary is the 15th among 20 European countries. Italy, Poland, Spain, Portugalia and Romania follow in the list.

Public programmes have been loosing popularity in almost every country and this is particularly true for the cinema. A Hungarian goes to *cinema* 7 times a year on the average, one time less frequently than in 1970. The decrease is of a similar rate in Austria, Denmark, the Federal Republic of Germany and in Switzerland.

The impact of *television* is usually not so striking in the case of *theatres* as in that of cinemas. Frequentation decreased only slightly between 1970 and 1975 and in some countries, such as Hungary, there was even some increase. In Hungary in 1975, the number of theatre-goers was 59 per 100 inhabitants attaining thus the 6th place among the 9 socialist countries. Among the socialist countries this rate is higher in the German Democratic Republic and Czechoslovakia and lower in the Soviet Union and Poland.

The *publishing of books* increased one and a half times between 1960 and 1975, similarly to the average European rate.

In Hungary 8.8 books are published per ten thousand inhabitants. This gives a fair medium position among the European countries. Among the socialist countries Czechoslovakia has a rate near to Hungary's while in Bulgaria, Poland, Romania and the German Democratic Republic the number of books published per 10 000 inhabitants is much less.

The dynamic development of publishing holds for the number of both works and copies. The number of copies per ten thousand inhabitants is 78 in Hungary, 73 in the German Democratic Republic, and 30 to 50 in the other socialist countries.

The pattern of publishing altered much in 15 years. In 1960, 43 per cent of the books published belonged to the field of applied sciences and 11 per cent to social sciences. In 1975 applied sciences ceased to represent such an overweight while the share of treatises in social sciences increased.

In Hungary for some years already about every seventh book is by a foreign author. This figure is about every twelfth in Austria, Romania and Poland. The proportions are similar to ours in the Netherlands, Yugoslavia and Czechoslovakia.

\*This term includes radio, TV, cinema, theatre, concerts, publishing of books, periodicals & newspapers, so-called cultural centres, etc.

Country	Ra	idio cribers	Telev subsc	vision ribers	Ave number of daily	rage of copies papers	Yearly num performant	ber of cinema ces attended
country			per 1000	) inhabitants	per d	capita		
	1970	1975	1970	1975	1970	1975	1970	1975
Austria Belgium Bulgaria Czechoslovakia Denmark United Kingdom Finland France Greece The Netherlands Yugoslavia Poland <i>Hungary</i> German Democratic Republic Federal Republic of Germany Norway Portugal Romania Spain Switzerland Sweden United States Canada	273 373 270 267 325 327 375 318 113 <sup>d</sup> 278 163 173 245 347 318 307 146 152 210 <sup>b</sup> 295 41 <sup>c</sup> 1412 742	$\begin{array}{c} 342\\ 384^a\\ 262^a\\ 265\\ 331\\ 750^a\\ 431\\ 346\\ 279^a\\ 284^a\\ 193^a\\ 237^a\\ 240\\ 356^a\\ 338\\ 319\\ 173\\ 146\\ 228\\ 322\\ 380\\ 1882\\ 959 \end{array}$	192 216 121 214 266 293 221 217 10d 243b 88 129 <i>171</i> 282 272 220 40 73 124 203 312 412 349	$\begin{array}{c} 247^a\\ 255\\ 168^a\\ 245^a\\ 308\\ 320\\ 306\\ 268\\ 126\\ 259^a\\ 132^a\\ 179\\ 226\\ 307\\ 306\\ 255\\ 65\\ 120\\ 184\\ 273\\ 352\\ 571^a\\ 411 \end{array}$	260 <sup>e</sup> 193 252 364 463 <sup>e</sup> 392 <sup>e</sup> 238 <sup>e</sup> 79 315 85 209 214 445 <sup>e</sup> 319 383 84 169 104 375 534 302 218 <sup>e</sup>	320 239 232 300 341 388 440 <sup>a</sup> 214 107 <sup>a</sup>  89 248 233 472 289 <sup>a</sup> 412 70 129 <sup>a</sup> 98 402 572 287 	$\begin{array}{c} 4.0\\ 3.0\\ 13.0\\ 8.0\\ 5.0\\ 4.0\\ 2.0\\ 4.0\\ 2.3\\ 4.0\\ 4.0\\ 5.0\\ 3.0\\ 4.0\\ 3.0\\ 10.0\\ 10.0\\ 10.0\\ 5.0\\ 3.0\\ 4.0\\ 3.0\\ 4.0\\ 3.0\\ 4.0\\ 3.0\\ 10.0\\ 10.0\\ 10.0\\ 10.0\\ 5.0\\ 4.0\\ 3.0\\ 5.0\\ 4.0\\ 5.0\\ 5.0\\ 5.0\\ 5.0\\ 5.0\\ 5.0\\ 5.0\\ 5$	2.8 2.6 13.1 5.8 3.7 2.1 2.0 3.4 <sup>a</sup> 2.1 3.8 4.1 7.0 4.6 2.1 4.6 4.1 <sup>a</sup> 8.7 7.2 3.6 3.1 4.3
<sup>a</sup> 1974 data <sup>b</sup> 1971 data <sup>c</sup> No. of radio sets combined with <sup>d</sup> 1969 data <sup>e</sup> 1968 data <i>Source:</i> see Table 4	TV not includ	ed						

Table 5 Major international indicators of public cultural institutions

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In Hungary 27 kinds of *political dailies* are published, about as much as in Austria, Belgium, Czechoslovakia, and Yugoslavia. 233 copies of an issue fall per one thousand inhabitants, which is similar to figures in Bulgaria, France and Poland.

In Hungary the number of volumes kept in libraries nearly trebled in 15 years. There are 29.000 volumes per ten thousand inhabitants which has been found to be an excellent data among the European countries. This rate is the most advantageous in the Soviet Union with nearly 60.000 volumes per ten thousand inhabitants, but otherwise only the North European states – prominent also in publishing – have big repositories of books relative to the population (around 30.000 volumes per 10.000 inhabitants).

The information given by cultural institutions has to be complemented by household surveys. The first survey of that kind was carried out in 1959 by the Central Statistical Office in connection with household budget statistics and then in 1964 and in 1974 independently, using representative samples of 2 per mille.

These surveys provide the grounds for studying the cultural activity of the population older than 10 years in the context of the major demographic factors such as age, sex, schooling, occupation, residence.

In 1974, more than half of the population only availed themselves of the means accessible at home, that is, radio, television, newspapers, periodicals, perhaps books. This rate was about 40 per cent among the non-manual employees and about the double, i. e. 76 per cent among agricultural and manual workers. (This is, naturally, also due to the facts that intellectuals are more educated, more of them live in cities, and their composition by age is more favourable.) From 100 inhabitants 88 listen to the radio, 84 look at the television and 70 read newspapers. About half of the population above the age of 10 read books, but this figure is over 80 per cent among intellectuals and hardly more than 20 per cent among agricultural workers.

Cultural forms outside the house are availed of mainly by young people. From 100 inhabitants 38 go to cinemas, 18 to theatres, 14 to concerts, and 7 per cent of the population aged 10 or older attend programmes of cultural centres. Many of the participants go relatively often and therefore the data of frequentation figuring in institutional statistics are often restricted to a relatively narrow stratum of the population.

Moreover, the institutional data do not inform about the kinds of programmes that are more or less popular, what kinds of programmes are heard or seen whenever possible, how many of the population and which strata make a deliberate choice and which strata benefit from the public cultural services depending only on how much time they can spend on them but without any selection according to contents.

The same is true in international dimensions as well. For example a few years ago a high correlation could be stated between the degree of schooling and the cultural statistical indicators in the European countries. Today this is not so unambiguous and not because the relationship has become weaker but because the traditional institutional factors as applied in statistics do not adequately reflect the cultural activities of the most educated and culturally most advanced countries.

# Housing

Housing and its engineering standards are closely related to the degree of urbanization. In this respect the countries of the world are ranking in a fair accordance with their general level of economic development. The flow of the rural population to towns accelerated between the two wars along with industrial development and the product was, as a rule, a housing shortage. The countries combated this shortage by residential construction and the results began to show by the end of the 1930s. This process was halted by World War-II. It needs no special explanation how the European stock of flats was damaged and the countries that suffered the greatest losses are also known. The countries again exerted enormous efforts to combat the housing shortage and through these efforts housing conditions in Europe have been greatly improved.

Between 1967 and the end of 1975 *the housing stock* of most European countries increased by 10 to 19 per cent. During this period the increase amounted to 16.3 per cent in Hungary. The rate was higher than the average in Spain (34.5 per cent), in the Netherlands (30.3 per cent) and in Switzerland (29.0 per cent).

There are strong differences in European countries with respect to flats per one thousand inhabitants (see Table 6). In 16 European countries the average number of flats per one thousand inhabitants was 309 in 1967 and 349 in 1976. By growth in the number of flats per one thousand inhabitants Hungary is tenth in the list after the leading capitalist countries.

The number of persons per one room gives a good idea about the housing density. The ratio of flats where this value is below one person is more than 90 per cent in Canada and England. In the West European advanced capitalist countries and in the United States it is in the range of 70 to 80 per cent. This ratio has risen above 30 per cent in Czechoslovakia and Hungary from among the socialist countries and is around 20 per cent in the other ones.

According to the housing censuses carried out around 1970 the number of *rooms* per one flat is higher in the Western countries with a more favourable housing density. In these countries flats consist on the average of 3.5 rooms, moreover, of 4.1 in the Federal Republic of Germany, of 4.7 in Switzerland, of 4.8 in the United Kingdom, and of 5 in Belgium. In Holland, where the density is low, the number of rooms per one flat was found to be 5.2. Canada is in a still more advantageous position. The average room number is there 5.4 and it is over 5 in the United States and in the Netherlands. It is near to 5 in Belgium and in the United Kingdom (see Table 7).

Despite the enhanced rate of building to make up for the insufficient amount of flats consequential to the devastation of the war and to the pre-war housing stock, the socialist countries do not reach the average room number of the said capitalist countries, consequently the flats are more crowded.

With respect to the *engineering standards* (i. e. the equipment of the flats) again the West European countries, the United States and Canada top the list. The ratio of flats

## Table 6

International data on housing density

Country	Number of flats per one thousand inhabitants			
	in 1970	in 1976		
Austria	362	388		
Belgium	372	400		
Bulgaria	261 <sup>b</sup>	286		
Czechoslovakia	312	325		
Denmark	350 <sup>b</sup>	397		
United Kingdom	346	365		
Finland				
France				
Greece				
The Netherlands	289	329 <sup>a</sup>		
Yugoslavia	245	268		
Poland	255	276		
Hungary	310	341		
German Democratic Republic	355	390		
Federal Republic of Germany	341	390		
Norway				
Portugal				
Romania	-			
Spain	314	344		
Switzerland	351	399		
Sweden	394	434 <sup>a</sup>		
United States	277	322		
Canada	306	341		

<sup>a</sup>calculated data

<sup>b</sup>1967 data

Source: Annual Bulletin for Housing and Building

Statistics for Europe, 1960-70. New York, 1977. U. N.

with water supply and bathroom is between 80 to 90 per cent, and in the United States practically every flat is supplied with water and bathroom.

In the socialist countries the state tries to allocate as much as it can afford to foster building and this is complemented by the active contribution of the population. There are two main forms in which the state contributes to the implementation of the housing program: on the one hand, it builds flats and, on the other hand, it gives many-sided support to private building (e.g. long-term credits and different bonuses, facilities).

# Table 7

Country	Number of persons per one room	Average room number of flats	Ratio of flats with bathroom
Austria	1.10	3.70	52.9
Belgium	0.60	4.96	47.8
Bulgaria	1.00 <sup>a</sup>	3.20 <sup>a</sup>	8.7ª
Czechoslovakia	1.10	3.10	58.6
Denmark	0.80	3.50	76.5
United Kingdom	0.60	4.80	90.7
Finland	1.00	3.10	40.3
France	0.93 <sup>b</sup>	3.29b	47 5b
Greece	0.90	3.50	35.6
The Netherlands	0.66	5.20	81.4
Yugoslavia	1.40	2.80	24.6
Poland	1.40	2.90	29.5
Hungary	1.30	2.60	31 7
German Democratic Republic	1.10	2.70	38.7
Federal Republic of Germany	0.70 <sup>b</sup>	4.10 <sup>b</sup>	80.8b
Norway	0.70	4.40	66.1
Portugal	0.80		32.6
Romania	1.40 <sup>c</sup>	2.60°	0.80
Spain		4 20d	41 1
Switzerland	0.63	4 70	80.0
Sweden	0.70	3.80	81.7
United States	0.70	5.10	00.8
Canada	0.60	5.40	90.7
a1975 data	1	and the second	

# Major international housing indicators for 1970

<sup>a</sup>1975 data <sup>b</sup>1968 data <sup>c</sup>1966 data <sup>d</sup>1960 data *Source:* see Table 6

The efforts exerted in the last decades and especially in the last ten years have greatly improved the European housing conditions but quantitative shortages nevertheless exist in some less advanced capitalist and in the socialist countries.

The following must be noted on the causes of the quantitative housing shortage:

- increased internal migration and hence increased urban population owing to industrialization in the latest decades;

- changing ways of family life, a growing demand of the young couples for independent apartment;

-a high-rate obsolescence of old flats and a growing number of flats to be demolished;

- because of the great tasks and burdens of reconstruction and economic development encountered simultaneously in the 10–15 postwar years the volume of building was below what would have been necessitated by the housing shortage.

In addition to the quantitative housing shortage, especially with the significant increase in standards of living in the last decades, there is an increasing demand for better quality flats. This demand asserts itself more powerfully in the economically more advanced capitalist countries but is also increasing in the socialist countries.

In Europe between 1966 and 1977 a total of 68.2 million flats were built, i. e., a yearly average of 7.9 flats per one thousand inhabitants. In these years the amount of flats built in the socialist countries was greater than in the preceding period, and this resulted in a marked increase in the number of new flats per one thousand inhabitants. With respect to the *number of new flats per one thousand inhabitants* Hungary was as a rule in the first lines among the socialist countries and in the middle relative to the whole of Europe. In the years 1976 to 1977 the rate of newly built flats (8.8) was significantly better than the European average (7.5 flats per one thousand inhabitants).

In Hungary the government has for a long time been working hard to put an end to the quantitative shortage of housing and to improve the composition of the housing stock.

In 1960 the government adopted a 15-year housing program aimed at the building of one million new flats. The target was overfulfilled, mainly through the boosting of private building, and by the end of 1975 1.05 million new flats were built. As a result, one-third of the population could move into new modern apartments.

The basic government objective in the building and distribution of flats is to assert social considerations as far as possible in order to make it more accessible and, from the financial point of view, more feasible for the workers to have a flat of their own. For the purpose of raising the low rate of population increase the government introduced a scheme of social-policy benefits under which the price of flats is reduced in proportion to the number of children a couple promises to have (by 30,000 forints a child).

Part of the flats built by the government are given for low rent and a rather low "entrance fee" to such families who, for financial or other social circumstances, cannot afford to buy a flat. Council flats are rented mainly to manual worker families with 3 children or more, and to newly-wed young couples. The rest of flats become cooperative property. The cooperative members obtain the flat at a price much below the building cost.

For families in better financial circumstances the state grants long-term credits (normally for 30 to 35 years) at advantageous interest rates for buying or building homes. The lively construction activity initiated by the population is a guarantee for the fulfilment of the housing targets every year.

# Table 8

International rates of housing construction

Country	Number of flats built, per one thousand inhabitants				
1	in 1970	in 1975			
Austria	6.1	6.4			
Belgium	4.8	6.7ª			
Bulgaria	5.4	6.6			
Czechoslovakia	7.8	10.0			
Denmark	10.3	7.0			
United Kingdom	6.6	5.9			
Finland	10.6	15.6ª			
France	9.3	10.0			
Greece	13.0	13.4			
The Netherlands	9.1	8.9			
Yugoslavia	6.3	6 9a			
Poland	6.0	7.8			
Hungary	7.8	94			
German Democratic Republic	4.5	6.4			
Federal Republic of Germany	7.8	7.1			
Norway	9.4	10.2			
Portugal	3.2	5.3ª			
Romania	7.9	7.8			
Spain					
Switzerland	10.6	9.0			
Sweden	13.6	9.1			
United States	7.1	6.2			
Canada	. · ·				

<sup>a</sup>1974 data Source: see Table 6

# Social insurance

From the economic point of view social insurance benefits are not considered to be services. However, they play a role in the redistribution of income motivated by social policy considerations. Thus, the social-policy significance of these benefits is not less than that of other social services in general. For this reason the development of social insurance benefits in Hungary is reviewed in this category of services.

The importance of the social insurance benefits is shown by the fact that in Hungary 30 per cent of the income of the population originate from social benefits (as against the 70 per cent proportion of income from work). Within social benefits and

especially within those paid in money, social insurance allowances represent the biggest volume. Especially high is the value of pensions, considering that the right for pension is almost general and the age of retirement is relatively low (55 for females and 60 for males). The different allowances related to children represent another vast amount and are motivated in addition to the social-policy principle of levelling family burdens by demographic-policy considerations as well.

A comparison of the Hungarian social insurance scheme with other countries is often difficult in part because of differences in the types of benefits and in part because of insufficient data.

Before the war the organization of social insurance was scattered. Some 30 or 40 social insurance institutions offered different services and also the amounts of benefits varied. The development started in the 1950s has raised the Hungarian social insurance to the level of the most advanced ones in the world. In 1938 insurance only covered 2.8 million people (workers with family members), i. e., 31 per cent of the population. This ratio increased to 47 per cent in 1950, to 85 in 1960 and to 97 in 1970. From July 1, 1975, with the enacment of the right by citizenship to medical supply it may be stated to be 100 per cent.

Pensions and family allowances must be noted first from the benefits. Comparable data suitable for the assessment of the tendencies are only available for the CMEA countries.\*

The relative number of people *on pension* to the total population is the highest in the German Democratic Republic, Czechoslovakia and Bulgaria, now more than 21 percent. This rate is 18.0 and 18.1 per cent, in the Soviet Union and in Hungary, resp., and is the lowest in Poland (appr. 10 per cent). In the countries where the rate is the highest, similar values were found already in the 1970s, that is, the ratio of those in pension incerased slightly over the last 7 years while this increase has been strong in Hungary.

The average amount of pensions incerased at various rates by countries (see *Table 10*) and the proportion of the pensions paid to average wages was also different (see *Table 11*).

Also the monthly average amount of pensions increased at the highest rate in Hungary (between 1970 and 1977 it more than doubled). Its increase was significant (appr. 70 per cent) in Poland. In the other European socialist countries the increase varied between 30 to 50 per cent.

It may be attributed in part to the raising of pensions that this indicator – relating the value of pensions to average monthly wages – is the highest, nearly 50 per cent, for Hungary. The value of Poland (47 per cent) is close to it while in the Soviet Union and in Bulgaria the monthly sum of pensions only amounts to about a third of the average monthly wages.

\*Comparison with capitalist countries is difficult because most of these countries do not have general and uniform schemes either for social insurance, or for pension to cover the entire population.

# Table 9

Country	Rate of p in percentage of	ensioners f the population
	in 1970	in 1977
Bulgaria	19.6	21.2
Czechoslovakia	21.2	21.7
Cuba	4.2	5.9
Poland	7.2	10.4
Hungary	14.0	18.1
Mongolia	2.0	3.7
German Democratic Republic	21.6	22.4a)
Soviet Union	17.0	18.0

# Rate of pensioners in CMEA member countries\*

\*Except Romania a)1976 data

Source: Народное хозайство стран-гленов Совета экономической взаимопомощи в 1977 году. Статистический сборник. Москва, 1978. р. 842.

# Table 10

# Table 11

Monthly average amount of pension in some CMEA member countries (in national currencies)

Country	in 1970	in 1976
Bulgaria	36.4	51.1
Czechoslovakia	837	1089
Cuba	66.9	72.1
Poland	1204	1803
Hungary	765	1462
Mongolia	136	165
Soviet Union	34	48

# Monthly average amount of pension in percentage of monthly average wages in some CMEA member countries

in 1970	ın 1976
29.4	34.5
. 43.2	46.0
57.7	51.1
53.9	43.8
35.5	49.1
27.9	31.7
	in 1970 29.4 43.2 57.7 53.9 35.5  27.9

Source: see Table 9

Source: see Table 9

The different countries have rather differentiated and diverse types to family allowance schemes. Family allowance is paid in many countries (Bulgaria, Czechoslovakia, Poland, Romania) after the first child. In Hungary only single parents benefit from family allowance after one child and those families with several children where only one of the children is in the age to qualify for the allowance. The family allowance is determined in Poland according to the amount of per capita income and in Romania according to the amount of family income and also according to the type of settlement. In Hungary after 3 or more children the amount of allowance is the same for every child, while in other countries (Czechoslovakia, Poland) progressive allowances are paid. Growing emphasis is laid in the socialist countries on levelling out the unequal family burdens and, consequently, the family allowance scheme has been improved and the amounts have been increased is most of the countries. From a comparison of data of four countries (Hungary, Bulgaria, Czechoslovakia, Poland) it may be seen that in Hungary the amount of family allowance paid after 2 children amounts to about 22 per cent and after 3 children to 35 per cent of average wages while this percentage is in the range of 5 to 18 and 8 to 37 per cent, resp., in the other countries. [1]

It is noted here that above the family allowance and the internationally known types of childbirth benefits (pregnancy and maternity allowance for the period of 5 months and equivalent to the monthly earnings as well as a separate maternity allowance), a rather unique scheme of social insurance benefit has been effective in Hungary since 1967. This is the *child-care allowance scheme*. Under this system employed mothers may chose when the period of pregnancy and maternity has terminated, that is, practically when the child has become five months old, whether to return to their job or to stay at home with the infant (until it reaches the age of 3); in the latter case they get a definite amount of allowance equivalent to about one-third of the average wage of females.

The above-mentioned physical indicators and the financial data were usually of the institutional type. This means that they are based on the records of the organizations concerned, e.g. hospitals, schools, cinemas, publishers, social insurance organizations, housing authorities, etc. Although these data show orders of magnitude and on that basis also averages, they do not contain much information about the dispersion behind averages. In order to learn the measure and frequency at which the different social strata or demographic groups benefit from the different types of social services, another approach, i. e. sample household surveys are required. In our statistical work in Hungary we have for the last ten years tried to use this approach through representative surveys selected from samples of censuses. In these surveys the source of data is the household. This way, first, it becomes possible to study the differences and distributions by social and demographic strata. On the other hand also the relationships existing between the various factors (income, housing, health, schooling circumstances; cultural activities; way

ot life; way of leisure, etc.) are illuminated. This method of analysis is thought to be highly revealing with respect to the relations existing between the standard of living and the way of life, between financial status and the quality of life, which relations are recognized as fairly ambiguous.

# Reference

1. SZABADY, E.: A világnépesedési akcióterv alapelvei és az európai szocialista országok népesedési politikája (Principles of the world demographic action programme and the demographic policies of European socialist countries.) Demográfia, 1977. No. 4, pp. 395-404

# NEWS ABOUT THE HUNGARIAN ECONOMIC SCIENCE

The 139th General Assembly of the Hungarian Academy of Sciences, held in May 1979, elected the following *ordinary members:* 

Iván T. Berend, Rector of the Karl Marx University of Economics, professor of economic history,

Ernő Csizmadia, agricultural economist, Dean of the Karl Marx University of Economics, member of the Editorial Board,

Péter Erdős, scientific adviser of the Institute of Economics, Hungarian Academy of Sciences, professor of the Budapest Polytechnical University, member of the Editorial Board,

Kálmán *Szabó*, professor, holding the chair of political economy at the Karl Marx University of Economics. All of them were earlier corresponding members of the Academy.

The General Assembly elected the following members honoris causa:

Lord Thomas Balogh and

Lord Nicholas Kaldor, both of whom are internationally known economists of Hungarian descent, further

Günther *Kohlmey*, member of the Academy of Sciences of the German Democratic Republic.

The General Assembly paid tribute to the memory of M. H. Dobb, British Marxist economist, who was a *honoris causa* member of the Academy.

At the end of his second term, academician Iván T. *Berend* was relieved as Rector of the Karl Marx University of Economics and academician Ernő *Csizmadia* was elected to follow him in the office.

\*

The Karl Marx University of Economics started a new periodical under the title of "Egyetemi Szemle" (University Review). The first issue constains an article by Ernő Csizmadia on economic development in Hungary, one by Mihály Simai on the new stage of world economic development and its implications for the Hungarian economy, as well as articles on the foreign trade impact of investments, on the legal relations between control organs and the enterprises, as well as on Hungarian economic policy in the age of dualism (meaning the Austro-Hungarian monarchy from 1867 till the end of World War I). The periodical also carries columns for discussions and book reviews. The contents of the periodical is given in English and Russian as well.

Acta Oeconomica Vol. 23 (1-2), pp. 225-228 (1979)

# BOOK REVIEWS

TÖMPE, I.: Struktúraátalakító beruházási döntések (Investment decisions aimed at structural transformation.) Budapest, 1979. Közgazdasági és Jogi Könyvkiadó. 327 p.

In this book the author undertakes more than what is suggested by the title. Although he makes the statement in the foreword that within the Hungarian investment policy between 1975 and 1978 he will analyze first of all the decisions that influence the economic structure, the reader will get ample information on all important questions of investment policy from the economic reform of 1968 to our days, and even on that in the years before.

The leading idea of the book is an examination - from the aspect of investment policy - of the economic policy and institutional conditions of adjustment to the fundamental changes in world economy, that is, to the new conditions of the external environment. As regards the basic principles of the decision system on investments, the author holds the position of the Hungarian Socialist Workers' Party taken at the 9th congress in 1966 to be very timely, namely, that the investment decision should be made where the basis of information is the largest, that the profitability of developments should be the most important viewpoint, and that the ratio of funds for which tenders can be put in should grow among the resources to be invested. In an extensive analysis the author confronts the ideas of the reform with the reality of our days: "The 'old' and 'new' mechanism differed from each other the less perhaps in the field of investments . . . relative to the technological equipment the implementation period is two- or threefold of what is found in international experience. In the

course of the 3rd and 4th five-year plans (1966–1975) the financial means freely usable but disposable through tenders practically did not work, the five-year plan cycle of investments as well as their internal three-year stop-go cycle went on... Conformity with the plan did not improve... the shortage economy continued on the investment market, and the 'inflation' of enterprise and central goals has continued."

What is the situation in the field of investments aimed at structural transformation? The author divides investments by their purpose into those transforming structure, and those increasing elasticity and "developing the backgrounds". In his interpretation structuretransforming investments are the large central development projects implemented in the competitive sphere. In the given conditions of economic control the efforts aimed at transforming the economic structure have been so far embodied in this kind of investment, since the rearrangement of the current production has always been put off for lack of an efficient system of instruments. The practice of long decades accustomed decision-makers to ease investment tensions appearing at any level through this type of investments. Not trusting in a fast and favourable spontaneous transformation of the structure, the state intervenes deeply by right of the owner in the economic process, in order to eliminate backwardness and to accelerate economic growth. Its intervention necessarily diminishes the assertion of profit motives, and that to such extent as the efficiency requirements of the current production are driven to the background. The impairment of the profit incentive forces the enterprises to take over the investment preferences of the centre

and, identifying themselves with the aims of the higher control organs, to set forth their own investment proposals to fit into the central line, thus trying to gain the "goodwill" of the "guardians" of investment funds.

The gradual increase of state intervention is reflected also in the fact that the practice of credit financing of investments deviated from the original intentions of 1968. The reform meant to bestow an important role on the credit mechanism first of all in the financing of replacement and of "background" development. In fact, it was not a ranking by efficiency, but the preferences of the centre, planning and thinking in physical terms, that played a determinant role in the distribution of credits. In a popular formulation: credits were "earmarked" - that is, a narrow sphere of potential users was strictly assigned to each credit quota. From 1969 to 1975 there was no free competition for credits (tenders for freely usable financial means) in Hungary. The competition for credits from the fund of "Ft 45 thousand million" disposable through tenders announced in 1975 and aimed at enlarging the commodity stocks competitive also on the Western markets reflects the recognition of the leadership that in the increasingly difficult foreign economic situation more space has to be given to investments expected to be returned fast upon the basis of efficiency ranking, and to be implemented in small and medium-scale enterprises. The National Bank of Hungary that announced the credit competition (tender) ranked the development proposals received upon the basis of profit proportionate to capital and, since commodities to be exported to the Western markets were involved, upon the basis of an indicator showing the production costs of winning a unit of foreign exchange and of the returns from dollar earnings.

Proper selection of the indicators for ranking leads us to the problems of investment profitability indicators. The author presents a series of the possible approaches, then goes on to describe in detail the investment profitability computation obligatory for all large investment projects since 1969, that is, the so-called "D" indicators. This computation is to demonstrate, how many times the capacity created by the given invest-

ment is refunded from its own sales returns during a fifteen-year period.

The part of the book treating the interrelations of the investment decisions with the CMEA markets is put into the Annex, but is no less important. One of the new fields of the CMEA cooperation, raising much interest and much disputed, is the question of investment contributions. The author presents in detail the neuralgic points of the investment contributions: the price problem, the size of interest rates, and their functioning. He emphasizes that in deciding whether Hungary should join into any foreign investment one single economic consideration must be asserted, namely the profitability of the action. The author holds the investment contribution to be one of the possible forms of solving our raw material problems, though, as it is, not the only one.

# S. RICHTER

ANDORKA, R.: Determinants of fertility in advanced societies. London, 1978. Methuen and Co. Ltd. 431 p.

The book of the Hungarian author gives a summary of the theories and researches which are concerned with social factors affecting fertility in advanced countries. The question is a topical one, since a considerable fall in fertility has been found in the last ten years which may, in the author's opinion, cause some problems in the countries in question.

The first part briefly summarizes the most important indicators used for the measurement of fertility, then goes on discussing the biological background of the subject, the concept of natural fertility and its estimated magnitude.

The second part concerned with demographic theories discusses first the theory of Malthus, then the conception of the demographic transition, and finally, in more detail, today's theories on the economic background of fertility. The author points it out that the latter are based generally upon the assumption that couples make rational decisions on the number of children on the one hand, and their decisions are to a certain extent determined by the decision patterns of

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consumer goods. In other words, the choice between children and consumer goods can be explained on the basis of the marginal utility theory, and therefore, the given number of children is determined by the income level and the indifference curves relating to children and to all kinds of goods. Since from this would follow. that ceteris paribus, a greater number of children are found with those of high income, the theories introduce the concept of the differentiated children-sustaining charge depending upon the income level which, with sufficient differentiation, may point also to negative interdependencies. The so-called utility-disadvantage interrelations calculated or assumed on the basis of the income level are similarly ambiguous. The author reviews also the criticism of the economic theories, first of all from the sociological aspect, laying stress on the relative stability of norms, values and roles related to the family, as well as their independence, in certain cases, of the income conditions.

Part three discusses questions of the development of fertility in a period when information on the subject was extremely scarce (literary sources, family reconstructions, partial registers of births, etc.). In regard of this period, mainly the 17–18th centuries, the author seeks answer first of all to the question, relying upon fragmentary historical demographic information (using also the results of his own research work), whether actual fertility remained below the natural level of fertility. Since data give a positive answer to this question, the author goes on to examine the direct means of birth-control of the period, as well as its regional and social background.

Part four deals with the development of the 19–20th centuries relying upon investigations of registration, national censuses, fertility and family planning. In the author's opinion, the fertility and family planning investigations that have recently spread all over the world have supplied relatively little additional information on the factors aftecting fertility and on effective mechanism in comparison with the traditional census data.

*Part five* constitutes the real subject of the book: the problems of the social factors affecting fertility in the recent past and at present. The

author first treats briefly the role of marriage, and then the question, how far birth-control is known and how widely it is spread, which, as a mediating factor, may have theoretically a role in forming the actual fertility. The author takes in turn the theories according to which both the historical reduction of fertility, and the differentiation of fertility by social strata are connected with the knowledge of birth-control, that is, with the spreading of efficient methods. Although, in the author's opinion, a certain limited effect may be attributed to these factors, the fundamental problem of fertility research is presented by motivation, since there is a wide sphere of empirical data as well as historical evidence to illustrate that, in the case of a strong motivation, low fertility will emerge in the most widely different phases of birth-control techniques.

After that the author examines the much disputed question of income. After reviewing several research works he comes to the conclusion that the negative interrelation between income and fertility, used to be considered as of general validity, cannot be considered today as such, according to the latest results. It has been replaced partly by positive interrelations, and partly by the so-called U-shaped ones. It is mainly on the latter that the author publishes many results of examination and theories, among them that of Smolinski (Poland). Upon the basis of the different, and, to some extent, contradictory data and related theories the author formulates his final conclusion, somewhat surprisingly, in the following.

The examinations carried out in various societies and in various historical periods seem to clearly confirm that - ceteris paribus - the income level, its rise, and optimism concerning future income usually exert a positive effect on matrimonial activity. This is a very important conclusion, not only in the disputes concerned with the theory of fertility (since it confirms the basic theorem of economic fertility theories), but also in demographic polity (since it confirms that an improvement in the economic conditions of families with children may increase fertility). Although in the lines following the author himself warns against the seemingly too bold conclusion (pointing out that with rising income the other factors affecting fertility also change

automatically, such as the social status, domicile, education, and thereby also the costs of children and aspirations related to them), we have still to mention that exactly the changes in fertility of the last 4-20 years in advanced countries do not seem to justify this theorem. It seems that the author tacitly assumes that the recently observed U-shaped curve of interrelations will continue to be moving within the same domain of values also after a general improvement of income conditions, and thus the still prevailing negative correlation (which is the result of the relative majority of the present middle classes) will automatically change into positive. Experience gathered so far does not make this probable, rather it is assumed that the U moves parallel with the curves of income distribution. Else, in other parts of the book the author himself questions the practical importance of his theorem, pointing out, on the one hand, that the case of ceteris paribus can stand with the change of income, but for a very short period. and emphasizing, on the other hand, that with children and consumer goods the indifference curve may assume the most widely different directions.

The book then goes on to discuss the effects on fertility of the social and economic status, education, social mobility, the character of the settlement, migration, the employement rate of women, emancipation, and of religions and ethical factors. The author questions in most cases (with the exception of the fertility raising effect of the village way of life qhich he too acknowledges) the interrelations that are considered more or less as general in the demographic literature. He treats separately the psychological factors and mechanisms, and rather in a literary approach, without providing empirical facts. This part deals also with the problems of demographic policy.

Part six of the book is practically a completion of the second part dealing with the fertility theories, presenting now the latest changes in the economic and sociological theories. The author also makes an attempt to combine the two theoretical schools.

Finally, in *Part seven*, the author tries to synthesize the results and conclusions of the various research works, and to set up a general

theoretical framework. He forms the opinion that, out of the factors considered in the book it is the income, domicile and the employment rate of women that have a direct effect on fertility. The effect of the other factors (social status and mobility, education, etc.) is, in his opinion, but indirect and can assert itself only through certain cultural norms, systems of values and forms of behaviour. This distinction is to a certain extent arbitrary. Namely, the direct cause of the low fertility of advanced countries is the decision on birth-control (and its implementation). In the motivation background of such decision the various factors can be considered primary or secondary only arbitrary, depending upon the given point of view.

The highest merit of the book is that it clearly and concisely reviews an extremely rich and carefully selected literature (comprising about one thousand works). The method of discussion reflects that the author is not only well acquinted with the huge material, but is also in a position to criticize it, which enables him to present it concisely, selectively, as well as synthetically. (In a few cases, however, the method of discussion is somewhat rough-and-ready, for example, the subject of migration would have deserved more than two and a half pages.)

It is a further positive feature of the book that, in reviewing a large empirical material, it questions several demographical prejudices, or theorems accepted as axioms. It seems, however, that in his dislike of too often repeated, commonplace-like statements - which may be yet correct - the author is sometimes driven to exaggerations as for example in the case of the effect on fertility of education or of social mobility. In this it may play a role, perhaps, that the author sometimes gives preference to the investigations based upon novel opinions, verbal justifications and plans, over the traditional statistical factual data, though the former sometimes reflect only the mentality of those making the interviews.

It is a special attraction of the book that the English text is able to render the author's clear, logical and easy style, which makes this thoughtprovoking and at places dispute-provoking book enjoyable also for those reading English.

K. MILTÉNYI

# **BOOKS RECEIVED\***

- ANTAL, L: Fejlődés kitérővel. A magyar gazdasági mechanizmus a 70-es években. (Development with some digression. Economic mechanism in Hungary in the 70's.) Pénzügykutatási Intézet Tanulmányai. 113 p.
- BAGYINSZKI, J.: The lattice of closed classes of linear functions over a finite ring of square-free order. Budapest, 1978. Department of Mathematics, Karl Marx University of Economics. 21 p.
- BOTOS, K.-DOMBI, M.-GYÖNGYÖSSY, I.-MÁTRAI, M.-NÉMETHY, GY.-PATAI, M.: Aktuális nemzetközi pénzügyi kérdések 1. (International monetary questions of current concern. 1.) Budapest, 1979. Pénzügykutatási Intézet Tanulmányai, 142. p.
- DANG, H. D.: On the characteristic semigroups of mealy-automata and on a problem of I. Peák. Budapest, 1978. Department of Mathematics, Karl Marx University of Economics. 53 p.
- DOBOZI, I.-SIMAI, M. (Ed.): Gazdaságelmélet, Kelet-Nyugati kapcsolatok, magyar és amerikai gazdaság. A Negyedik Magyar-Amerikai Közgazdász Találkozó tanulmányai. (Theory of Economics, East-West relations, Hungarian and U.S. Economy). Budapest, 1979. Világgazdasági Tudományos Tanács. Irányzatok a világgazdaságban (Serial) 300 p.
- HEGEDÚS, M.: A new generalization of Banach's contraction principle and some fixed point theorems in metric spaces. Budapest, 1978. Department of Mathematics Karl Marx University of Economics. 56 p.
- HOFMANN, P.-RICHTER, H.-TJULPANOW, S. I. (Eds.): Theoretische und methodologische Probleme der politischen Ökonomie. Berlin, 1979. Verlag Die Wirtschaft, 192 p.
- LAJOS, S.-NAGY, A.-SZABÓ, L.-TILIDETZKE, R.P. Notes on semigroups V. Budapest, 1978. Department of Mathematics, Karl Marx University of Economics. 28 p.
- MIKÓ, GY.: Identification of the coefficient-functions in the general nonlinear input-output model. Budapest, 1978. Department of Mathematics, Karl Marx University of Economics. 7 p.
- MIKÓ, GY.: On the inverse coefficients of the stochastic linear input-output model. Budapest, 1978. Department of Mathematics, Karl Marx University of Economics. 11 p.
- PÁSZTOR, S.: A gazdasági nyitottságról. A gazdasági nyitottság tényezői, e tényezők szerepe a magyar gazdaságban. (On economic openness. The factors of economic openness, the part of these factors in the economy of Hungary.) Budapest, 1978. Pénzügykutatási Intézet Tanulmányai. 160 p.
- PAZZAGLI, C.: Per la storia dell'agricoltura Toscana nei secoli XIX e XX. Dal catasto particellare lorense al catasto agrario del 1929. Torino, 1979. Fondanazione Luigi Einaudi. 146 p.
- PINHAS, M.: A diffusion model for insurance analysis and survival probability and exponential martingale. Budapest, 1978. Department of Mathematics, Karl Marx University of Economics. 18 p.
- SEITZ, K.: Notes on algebraic systems. Budapest, 1978. Department of Mathematics Karl Marx University of Economics. 36 p.

\*We acknowledge the receipt of the enlisted books. No obligation to review them is involved.

# BOOK RECEIVED

- SIMAI, M.: Developing countries and international class conflicts. (Studies on developing countries, No. 99) Budapest, 1979. Institute for World Economics of the Hungarian Academy of Sciences. 57 p.
- WASS VON CZEGE, A.: Ungarns Aussenwirtschaftsmodell Eine Untersuchung des Spannungsfeldes zwischen Ost-West-Kooperation, und RGW-Integration. (Ökonomische Studien. Band 28) Stuttgart-New York, 1979. Institut für Aussenhandel und Überseewirtschaft der Universität Hamburg, Gustav Fischer Verlag. 355 p.\*\*
- WILCZYNSKI, J.: Comparative monetary economics. Capitalist and socialist monetary systems and their interrelations in the changing international scene. London and Basingstoke, 1978. The Macmillan Press Ltd. 270 p.\*\*

\*\*To be reviewed in Acta Oeconomica.

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- Gábor HIDASI, b. 1928. Cand. of Econ. Sci. Member of the Hungarian Scientific Council for World Economy. Author of "China's economy in the early 1970s, Acta Oeconomica Vol. 9, No. 1 (1972), "China's economy in the mid-1970s and its development perspectives" Acta Oeconomica Vol. 14, No. 4 (1975) in English, "Ekonomika i doktryna maoistowskich Chin" in Polish and several studies and articles on economic problems of the People's Republic of China in Hungarian.
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- Barnabás BARTA, b. 1930. Vice-president of the Central Statistical Office of Hungary. Author of several studies and articles on society-supply and environment-statistics mainly in Hungarian.



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# Printed in Hungary

A kiadásért felel az Akadémiai Kiadó igazgatója Műszaki szerkesztő: Botyánszky Pál A kézirat nyomdába érkezett: 1979. XII. 14. – Terjedelem: 20,5 (A/5) ív, 9 ábra

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Papers are published in English or in Russian and German in two volumes a year. Editorial Office: H-1502 Budapest, P.O.B. 262

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Публикуется в двух томах в год.

Статьи публикуются на английском или на русском и немецком языках.

Адрес редакции: H-1502 Budapest, P.O.B. 262

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Acta Oeconomica, Vol. 23 (3-4), pp. 235-245 (1979)

# **B. CSIKÓS-NAGY**

# NEW PRICE SYSTEM IN HUNGARY

In January 1980 pricing has been put on a new basis. Its guiding principle is that domestic prices should reflect relative world market prices thus making international competitiveness the main criterion of economic efficiency in enterprise activity. The price system, as a whole, will become more elastic in order to orient towards rational economic decisions more consistently.

The system of controlling income and finance has considerably changed in Hungary with 1980. Parallel with this a *general price revision* took place, covering both producer and retail prices. New industrial producer prices and freight tariffs were introduced. In agriculture new state procurement prices are valid in animal husbandry with January 1st 1980 and in plant growing with the turn of the economic year 1979/80. The price system has changed in the building industry, too. Estimates for investments in process have to be repriced by the application of indices specifically determined for this purpose.

In harmony with the adjustment of producer prices retail prices were partially modified already with July 23, 1979. Prices of certain foodstuffs, fuels, electric energy, building materials, shoes and furniture were raised. This measure increased the retail price level by round 9 per cent, from which 6 per cent were compensated by complementing earnings. Modification of the producer prices affects in 1980 retail prices naturally in other fields, since nearly half of the total commodity turnover, the majority of products put into circulation are realized at free prices. But these latter price changes are implemented by the trade gradually, adjusted to the character of individual products. This was the case also in 1968 when free prices were introduced in a wide domain.

# Basic principles of the new price system

The Central Committee of the HSWP determined the guidelines of the perspectivic development of the price-system in April 1978. Introduction of retail prices proportionate to value, re-establishment of the two-level price system (i.e. that the level of producer prices should be lower than that of retail prices), an organic connection between foreign trade and domestic prices as well as an increasing elasticity of the price mechanism were formulated as long-term requirements. The desire was expressed that these guidelines should serve as a basis already for the 1980 price modifications taking into consideration urgency as well as the possibilities.

The measure of July 23, 1979 may be considered as an important step from the viewpoint of progress towards *retail prices proportionate to value*. This was first set as an

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aim by the 1968 economic reform in Hungary. As it was formulated at that time: everybody should pay for products what they really cost. Of course, this has never been interpreted as a mathematical equation. According to central intentions, a relatively low price level (compared to inputs) of products and services satisfying basic cultural, health and social needs will be maintained in the long run, and so will the prices formed through higher than average taxation being aimed to secure budget revenues and to restrict the increase of personal consumption. To this latter sphere belong price deflections aimed at curbing a too rapid rise in the consumption of certain luxury articles, alcoholic drinks and tobacco and, recently, motoring.

Price preferences proposed for elimination were divided into two groups. The first one includes those concerning only Hungarian citizens like housing rents, travel facilities or certain services. Into the second one were grouped those more closely connected with foreign trade or with invisible exports as, for example, tourism. Here energy, fuel, chemical products and foodstuffs are of greater importance. The opinion has developed that in the framework of a general price revision the – at least partial – elimination of those price preferences should be endeavoured where the interplay into foreign trade is considerable. As against this, the modification of subsidized prices affecting only Hungarian citizens may be postponed.

The main and novel feature of the new price system introduced in 1980, deviating from the previous one, is *adjustment to world market prices*. This means that

- in the domestic valuation of *natural resources* (primary energy and raw materials) adjustment to the prevailing most expensive purchase prices;

- and in the domestic valuation of *finished goods* produced in competitive industries adjustment to export prices in convertible currency are taken for basis.

In the sphere of natural resources basing the economic calculations on world market prices means application of the principle of the more expensive import source. When world market prices are rising, purchasing from the West is the more expensive source for Hungary, since in the CMEA contractual prices follow the movement of world market prices with a lag, being an average of the previous five years' prices. Practically this amounts to a revaluation of energy and raw materials against the average inputs and it has to play a role in introducing more rational energy and material management than the previous one.

In the new price system the relative price of energy increased by 65 per cent and that of materials by 35 per cent in comparison to prices of finished goods. The change is even more conspicuous if the new price relations are compared with those before the explosion of oil prices. In comparison to 1973 the relative rise in prices amounts to 110 per cent with energy and to 60 per cent with materials. Accordingly, in harmony with the changes in international value relations the conditions of production technology, product pattern and business organization were made stricter under which the energy- and material-intensive products are realizable at a profit.

Interestedness in manufacturing products which are profitably saleable at every market in the world is promoted by *changing the prime-cost-type price system into a* 

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competitive one. In such a price system profit and loss reflect the position of the firm in international competition; and enterprise efficiency is an indicator of international competitiveness.

Naturally, introduction of the competitive price system was possible only in *competitive sectors*. When valuing the finished goods produced in competitive sectors, adjustment to the export price in convertible currency is based on the application of the export efficiency indicator. In Hungary, since the economic reform of 1968, it is regularly examined in each industry and in each enterprise participating in exports, how many forints of input are necessary to produce one unit of foreign exchange. A simple mathematical formula is applied: the numerator is the exponent calculated in domestic currency and the denominator the foreign exchange receipts for export. On this basis the producer price level can be determined. The idea is that the producer price level would be determined for enterprises by the price level of exports, but the relative prices of products by the domestic demand and supply relations.

In the competitive sectors adjustment of the producer price level to the export price level is the condition that the profit (or loss) of sectors (enterprises) should express their real position in the international competition; i.e. the hierarchy of rates of profits should reflect that of efficiency. It is in this manner that a producer price system that is an indispensable element of a structural policy, keeping rationality in view, may be established. At the same time, the producer price system is to be directed towards such retail price policy which ensures equilibrium, i.e. which considers the domestic demand and supply relations. This is why the relative prices of products should be adjusted to the domestic conditions of demand and supply.

The idea was raised that not the *export, but the import price* should be the regulator of price level. This conception was based on the fact that under the Hungarian development policy enterprises were founded and industrial sectors were established many times with the purpose of saving imports. Under such conditions however, when the *price gap* between the import and export price of a product is considerable, it is of fundamental importance in principle, that *the export price should be the general regulator of the price level.* The new price system should orientate first of all towards a structural policy economically expanding the export potential. Moreover, such procedures of production development and sales policy are to be adopted which allow the assertion of reasonable export prices.

The division of social production into competitive and non-competitive sectors depends on whether they manufacture such products, provide such services which may be subjects of foreign trade (export or import) or not. If classification of production is made on such a basis, we think only of visible trade (foreign trade), i.e. disregard the invisible trade (e.g. tourism). Namely, the invisible trade dissolves this distinction, because in that case the foreigner is confronted with the total domestic assortment of commodities; he is not excluded from anything, only from the social benefits ensured by law for Hungarian citizens.

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From the viewpoint of the price revision of 1980 it was a novel task to examine in which branches the competitive price system might be introduced as well as applied. *Agriculture had to be excluded* from the branches designated with this purpose. In a competitive price system the level of state procurement prices of agricultural products could not have been raised; what is more, even a modification of relative prices ought to have been made in favour of plants and at the expense of livestock. As against this, (a) the level of state procurement prices increased by 11 per cent, but ought to have been raised by round 30 per cent to eliminate the budgetary dotation of means of production (chemical fertilizers, plant-protectives, etc.), as well as (b) relative prices were changed in favour of animal husbandry and not of plant growing.

This was required to maintain the interestedness of producers in the intensive development of agriculture. The latter is realized throughout Europe by means of protectionistic agrarian policy, since the world market price of agricultural products is regulated partly by extensive ways of inexpensive cultivation overseas and partly by the production conditions of industrially developed countries producing at low specific costs.

Since a competitive price system covers only a part of social production, stress was laid upon examining how inclination to waste materials and energy could be eliminated or at least diminished in the formation of prices based on costs in the non-competitive industries. That is why a price formation based on proportionate prices has been decided upon. This is a principle of price formation applicable in the sphere of goods substituting for or related to each other. This method had already been applied in Hungarian price policy also previously and is generally characteristic in the sphere of retail prices, since, in the case of related articles, trade cannot disregard what price surplus the consumer is willing to acknowledge in the case of a new product, which is better because of its qualities than the products serving the same purpose and already on the market.

The method of proportionate prices is not new in the sphere of producer prices, either. E.g. in transportation the individual branches compete with each other. Therefore, when determining the tariff levels of branches we must not disregard the conceptions of transport policy and that the consigners should use the different transport vehicles in adequate proportions on the basis of interestedness. In a competitive price system it can be assumed that demand for those means of production which are in substitution relationship is governed by the principle of cost-minimization if there is a possibility of choice in productive consumption.

Finally, the price re-arrangement of 1980 established a price system with three centres. Formation of competitive prices covers approximately 35 per cent, "proportionate" price formation about 40 per cent and traditonal price formation based on costs about 25 per cent of social production. It was, however, easier to agree on the fundamental principles than on their implementation. This is understandable if we consider that the change in the price system was urged in Hungary by the need to restore the equilibrium of the balance of trade and not by the domestic market conditions. Therefore, in a certain sense, price relations best serving economic efficiency under Hungarian

conditions had to be stimulated. This is the essence of the problem, because the new price system can meet the requirements only

- if it can be ensured on the one hand that the orienting function of price towards rational economic decisions is not restricted to the day of the price revision, but *is* enforced continuously, complying with the changes in external economic and domestic market relations of the national economy; and on the other hand,

- if the restrictions with which the accepted principles of price formation could be introduced will gradually disappear and, parallel with this, the normative character of financial regulation will become more pronounced in the national economy.

It is not easy to realize all this and, obviously, such price relations cannot be "reproduced" regularly without an adequate market background. Therefore, it is useful to underline that the comprehensive modification of the control system and the related new price system are based on the dual hypothesis that

- disequilibrium is reflected in the balance of international payments and deficits can be eliminated without a sharpening domestic disequilibrium; what is more,

- equilibrium between demand and supply will be consolidated through more and more deliberate restrictive financial policy.

# **Problems of functioning**

Adjustment of the industrial producer price level to that of export prices in convertible currency raised some problems. How can the price level of an industrial sector or an enterprise be controlled, if price movements affecting only an insignificant part, perhaps not even 10 per cent of the value of output are considered? How can the general price level of the industrial sector and of the enterprise be reconciled with that of exports in view of the different product patterns and the fact that there are enterprises selling certain products only on the world market, but not at all on the domestic market? These problems are more severe in industries where the assortment of goods produced may amount to several thousands and the change of products is fast.

By means of the indicator of the cost of foreign exchange earnings the level of enterprise producer prices could be reconciled with that of export prices and the initial profit rates of enterprises for 1980 could be determined. At the same time, *export efficiency* measured by the cost of foreign exchange earnings could not be made the basis of controlling the level of producer prices. In this case we ought to have reckoned with the following problems. Enterprises would become very much interested in increasing the efficiency of exports which can be attained also by diminishing the volume of exports through elimination of uneconomic exports. The improving profitability of exports would entitle them to calculate higher profit rates also for domestic sales. The enterprise might concentrate its technological and organizational measures on the export-oriented activity and the price consequences of improved efficiency achieved in such a way with 5-10 per cent of output would be automatically enforced for the remainder of output.

In the early 1950s enterprises had to divide production into comparable and noncomparable parts in the interest of checking the fulfilment of plan targets concerning the reduction of prime costs. In connection with this much experience accumulated concerning the possibilities of enterprises in grouping their costs at discretion. a regulation of producer prices relying on the costs of foreign exchange earnings may revive also this practice.

This is why the opinion was formed that the movement of producer price level should depend partly on *profits realized in exports*, and *partly on the export price level*, though the information basis of the latter is not satisfactory. Competitive price formation should be developed in the future in such a way that the control of domestic prices through export prices should be adequately asserted without moderating, however, the interestedness of enterprises in increasing the efficiency of production for domestic purposes.

It seemed to be expedient to apply competitive prices in a wide domain, whereever there is a possibility for attaining international competitiveness within 4–5 years by means of reconstruction, changes in technology, modernization of products, modification of the product mix and, last but not least, through improvement of enterprise marketing policies. The permanent and temporary elements of tax refunds will be applied accordingly in exports.

Hungarian industrial enterprises compete on the world market with companies whose taxation rules allow them to offer their products on external markets at lower prices than at home. This is achieved in such a way that the value added tax (so-called net turnover tax) adjusted to the individual phases of production is reimbursed from the budget in the case of exports. In Hungary enterprises pay a 24 per cent tax on wages costs and this is calculated in producer prices. This is of the same type as the value added tax. Moreover, it is a characteristic feature of the new Hungarian price system that energy and material costs are determined for enterprises by the purchase from the most expensive source; the price difference resulting from less expensive sources of purchase is drawn away by the budget. This is naturally a disadvantage in international competition which can be compensated only by tax reimbursement.

It seemed to be expedient to introduce such a tax-reimbursement system in exports which furthers the modernization of production. A two-channel system of tax reimbursement was established keeping these considerations in view:

- a generally 10 per cent linear tax-reimbursement on the basis of export returns converted at the rate of exchange and

- subvention for the modernization of production adjusted to the particular conditions of enterprises,

The general tax-reimbursement is *permanent*, but subvention for the modernization of production is *temporary*, the process of its reduction was announced beforehand. This is how the reimbursement system influences the modernization of production, structural transformation and, finally, the attainment of international competitiveness.
It is assumed that improving economic efficiency will compensate for the reduction of the subsidy on modernization of production.

Price formation keeps the requirement of *proportionality* in view both in agriculture and in *transport*. Relative prices of the individual branches (products, services) are regulated in both sectors by their utility as judged by consumers. Of course, the situation is not fully identical in the food industry and in transport. Food economy is an important export industry as regards both its volume and proportion. In view of this, in those branches of the food industry which are important for export, relative prices were developed depending on export prices.

It should not be forgotten that both in agriculture and transport actual inputs have an important role in the development of the general price level or at least in the formation of "demand" for the price level. It is difficult to push into the background the routine thinking which *attributes losses not to bad management, but to obsolete prices*. According to this way of thinking price cannot be the critique of management, but has the only task to ensure conditions of self-financing for cost levels created by decisions on development, technology and work organization made independently of prices.

More attention should be paid to this problem in the future than previously. In the 1970s increasing material and technical supply had a too great part in the relatively rapid quantitative growth in agriculture, while improving efficiency had only a smaller one than would have been desirable. In transport trends developed, still prior to the 1973 explosion of oil prices, and dependence on cheap hydrocarbon and expensive solid fuel can still be observed.

In agriculture and transport official prices are enforced in a wide domain. There is considerable budgetary subvention in both sectors. Agriculture can obtain profits only with preferential prices and through budgetary subsidies of the means of production making the application of up-to-date agrotechniques possible. Under circumstances when we are changing over to competitive prices in the industry and wish to further the improvement of efficiency through degressive tax-refunds, it is justified to raise the question whether the introduction of similar mechanisms, complementing the price system, should not be examined also in the agricultural and transport sectors.

In the *building industry* (investments) the negative effects of the price system based on prime costs are seemingly neutralized by the normative system of costing. Costs of building are determined on the basis of cost-norms, additional costs stated by price authorities and normative profit margins. It is well-known, however, that because adaptation to individual circumstances is allowed, and for other reasons, even this price system does not enforce a rational behaviour despite all efforts.

The price system of the building industry (and even more of investments) has changed in some relevant respects. The new price system introduced in 1980 applies more unambiguous definitions in regard of surplus costs of construction works carried on under special circumstances, and makes the interestedness of the building industry independent of material costs. This is realized in such a way that cost-estimates are made in so-called

two-tier system. They contain the material and freight costs separately and no profit can be calculated after them.

However, a comprehensive reform of the price system of investments could not be realized. Though this would be needed because the present price system developed under such historical circumstances when investments were characterized by excess demand, building without plan documentation (designs), as well as by laxity in technology and working discipline. The price system of the building industry has to be further developed in 1980–1983. Introduction of a uniform system of norms, more organically connecting costs estimates with building methods, will mean considerable progress. In coming years measures should be taken independently of this in order to *strengthen the enterprising character of investments*. Gradual elimination of excess demand for investment will create more favourable conditions than previously and this may allow a more extensive use of the system of tenders in price formation already in the first half of the 1980s.

#### Preparation and introduction

Three phases were established for the price re-arrangement. The first was price modelling, started in 1978 and lasting until the middle of 1979. The second phase started following this and ended with the introduction of new producer prices at the end of 1979. This was the phase of actualization. The third phase – the so-called adjustment – will last till the autumn of 1980.

In the modelling phase attention was concentrated on three questions:

1. Determination of the principles of price formation. The three-centre price system was established at that time.

2. Determination of changes in price and cost structures. Most relevant measures in this regard were the following:

- a) Elimination of the charge on assets engaged.
- b) Elimination of the wage-tax imposed on wages paid by the enterprise.
- c) Regulation of the technological development fund.
- d) Standpoint on the revaluation of fixed assets.
- e) Regulation of normative profits.

3. Modelling of the main framework of the new price system, taking 1977 world market prices of materials and energy for basis, and using a 36 Ft/US \$ exchange rate.

The main deviations of the *actualization phase* from the first one can be determined as follows. 1. In the modelling phase principles of price formation of different sectors and within them of the individual branches were determined in general terms. But in the second phase already a concrete application of these principles to the individual branches (enterprises) had to be carried out. 2. In this phase 1977 world market prices of energy and materials had to be replaced by prices developing by 1980. Taking the inflation on the world market between 1977 and 1979 into consideration, the 36 Ft/US \$ rate of exchange was reduced to 34 Ft/US \$ in the actualization phase. This had to be done lest

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the inflation of world market prices expressed in US dollars should bring about a similar inflation in forints. 3. Model computations were made mostly on macro-level. Actualization could be made only with the participation of enterprises. The main feature of the second phase was precisely this transposition of macro-models to micro-models.

In the second phase most problems were raised precisely by the transposition. Computations with indices of changes in input-output price levels of enterprises made at the National Planning Office, the Ministry of Finances as well as the National Office for Materials and Prices revealed "price adjustment deficits" of several 10 thousand million forints. These "price adjustment deficits" indicated that enterprises built into their cost-calculations non-existing costs when they formed the new prices. The enterprises – with a few exceptions – overestimated input costs and established the initial prices for 1980 on the basis of production costs increased in this way, to which then normative profit margins were added.

This is not a new trend and is reckoned with also in other socialist countries. But the situation is relatively simple in such a system of economic control and management where profits are drawn away by the budget and the interestedness in profit of enterprises is based on the fact that a part of profits, the so-called "rest" is left with them. In Hungary profits belong to the enterprises on which a tax is levied by the state. That is why an *about 3 per cent reduction of the producer price level* had to be ordered in the manufacturing industry, the building industry and trade in the actualization phase, assuming that the 1980 initial producer prices would reconcile the price level with normative profit rates in this way.

At present the *third phase*, i.e. adjustment, has come to the fore. Reduction of the producer price level carried out in the second phase may not mean a final solution just for two reasons. Firstly, because micro-computations made in intersectoral relations still indicate some "price adjustment reserves". Secondly, because price adjustment errors are obviously not linear. We are interested in two issues. Firstly, that industrial enterprises left out of the system of competitive price formation may not get into better positions than those of progressive industries. Secondly, that the criteria of normative profits formulated in the price system should be enforced.

Profits have economic contents in the new price system. In industries where competitive price formation is applied, the initial profit rates have to be regulated by export efficiency. Therefore, if this was based on wrong computations, the errors have to be corrected. In agriculture and transport and, in general, where profits are regulated by budgetary subvention, this subvention has to be corrected, should it turn out that profitability is higher or lower than planned because of the subvention. Corrections are to be made on the basis of enterprise balance-sheets referring to the first quarter and first half of 1980, respectively.

At present, it can already be seen where world market prices were wrongly forecast. In the case of some materials it was already known in the second phase of the price reform that world market prices would be higher by the beginning of 1980 than the initial prices. These deviations may have cyclical reasons, but also lasting ones. In the

latter case they might express merely inflation on the world market, but might also indicate changes in relative prices. Regular examination of these price movements and adaptation to changes in the international price structure cannot be disregarded.

The "maintenance" of the new price system is a new task, though the problems themselves are not, and one could get familiar with them in connection with partial price adjustments made since the 1973 explosion of oil prices. It is justified therefore to characterize the price revision as a measure having founded a new course of price policy and not simply as the introduction of new prices.

The new price and financial systems recently introduced as well as the elements and functional mechanism of the system of economic conditions jointly created by the price and business situation on external markets still contain some uncertainties. There is no adequate experience about the functioning of the price and financial system as a whole, but first of all about enterprise reactions. What is known is that *fundamental changes are needed in approach and attitude* at both macro and micro levels. The problem to be solved is too serious for a solution to be sought after by usual excuses instead of self-examination.

Besides, there are some issues where a uniform economic policy attitude should be determined under more settled circumstances than those prevailing at present. This refers, for example, to the *exchange rate policy*. Towards the exchange rate policy such requirements are raised as the improvement of the state of equilibrium, currency stability, rational protection of the price level, strengthening of normativity as well as the elimination of budgetary subventions — which are often contradictory. The right solution ensuring a balanced economic development should be found through a joint examination of all these effects.

#### НОВАЯ СИСТЕМА ЦЕНООБРАЗОВАНИЯ В ВЕНГРИИ Б. ЧИКОШ-НАДЬ

В январе 1980 года в Венгрии была проведена реформа оптовых цен на базе новых принципов ценообразования. Ей предшествовала в июле 1979 года частичная реформа розничных цен, приблизившая цены на некоторые пищевые продукты, топливо и горючее, электрическую энергию, строительные материалы, кожаную обувь и мебель к уровню затрат на их производство. В результате этого пересмотра общий уровень розничных цен возрос на 9%, из которых 6% компенсировались населению за счет доплат из госбюджета.

В оптовом ценообразовании был осуществлен переход к ориентации на цены мирового рынка, привязке внутренних оптовых цен к внешнеторговым ценам, чтобы критерием экономической эффективности хозяйственной деятельности предприятий стала их международная конкурентоспособность. В соответствии с этим во внутренней оценке природных ресурсов (энергоносителей и сырья) определяющим фактором становится импортная цена, уплачиваемая при закупках из наиболее дорогостоящего источника импорта. Оптовые же цены на готовую продукцию определяются экспортными ценами на нее в конвертируемой валюте. Такой принцип ценообразования применим лишь в так называемых конкурирующих производственных отраслях, значительная доля продукции которых поступает на экспорт, оплачиваемый в конвертируемой валюте. Основой ценообразования на продукцию таких отраслей служит показатель рентабельности экспорта (затраты в форинтах/экспортная выручка в свободной валюте). Применяя этот показатель

рентабельности, предприятия устанавливают оптовые цены и на продукцию, поступающую на остальные рынки. Таким образом, конкурентоспособность и рентабельность продукции данного предприятия в оценке мирового рынка становятся основополагающими и в калькуляции его оптовых цен на внутреннем рынке. В неконкурирующих производственных отраслях оптовое ценообразование строится или на принципе пропорций замещения (субституции) потребительских стоимостей (исходя из цен на продукцию конкурирующих предприятий) или на себестоимости отечественного производства.

Таким образом, реформа оптового ценообразования 1980 г. создала систему цен, строящуюся на трех ценообразующих принципах: на принципе конкурирующего ценообразования (эта сфера охватывает 35% общественной продукции), на принципе пропорций замещения потребительских стоимостей (распространяющемся на 40% общественной продукции) и на базе себестоимости (охватывающей 25% общественной продукции). Цель реформы ценообразования — усилить ориентирующую роль цен в принятии рациональных хозяйственных решений, служащих восстановлению внешнеэкономического равновесия венгерского народного хозяйства путем усиления конкурентоспособности его продукции.



Acta Oeconomica, Vol. 23 (3-4), pp. 247-256 (1979)

# R. HOCH

# MODIFYING THE REGULATORS OR IMPROVING THE MECHANISM?

The system of economic control and management introduced in Hungary in 1968 has proved its viability and has been functioning more successfully than the mechanism prior to the reform. These results are the more remarkable since the reform was in many respects only partly realized; instead of further development it remained in a transitory state; what is more, some steps were taken even towards a pre-reform state. All this results in several contradictions and difficulties and necessitates a further development of the mechanism.

Recently I have been in a socialist country and have discussed the Hungarian economic mechanism with a colleague responsible for commodity supply. He told me that the commodity supply has been much better in Hungary than in his country and, obviously, the mechanism must play an important role in that. But the Hungarian mechanism was complicated and he was unable to understand it. Obviously he was overwhelmed by all the variety of criteria of the actual control system on different consultations and no wonder that he could not understand it. (I hardly can follow myself all the complicated and variable institutions that we call the system of controls.) Though rather ashamed, I enumerated the basic principles of the mechanism, I was bashful, because I thought he was already bored by them. But, it has turned out, he never heard that the enterprises are given no production instructions and that commercial firms - apart from exceptional "forced paths" - choose their suppliers themselves and they tell what, how much and when they want to buy from the producer, that they can also directly procure from the producers, that there is a mixed price system etc. etc. He never heard anything about these, made notes with great interest and at times gave expression to - well meant - doubts (e.g. that enterprises are operating without plan instructions etc.).

I have related all this because I feel that frequently we forget about the substance of the mechanism ourselves and get entangled in the ever more intricate web of the control system. The revisions made from time to time result, instead of a thorough and comprehensive analysis and further development of the mechanism, in minor or major changes not affecting the substance of the matter. In 1972 e.g. a rather wide-scope work was performed in many committees and subcommittees with the participation of quite a few experts. A thorough analysis of the functioning of the mechanism and its further development would have been topical already at that time. But, instead, we only got a set of practical control methods serving the fourth five-year plan to cover 1971–1975. (It is my conviction that, in spite of the efforts of some economists who were against the reform, a general revision of the economic mechanism would have been necessary already at that time.) Similarly, the recently concluded analysis of the price system and its reform

in progress is of a surrogate character. The price system is no doubt an important element of the mechanism (and of economic policy), but only an element that cannot substitute for developing the system of the mechanism. In fact, changing an element of the mechanism, torn out of context, may in many respects take us far from out objectives instead of bringing us closer.

What do I mean by a general revision and improvement of the mechanism? Before answering this question, I should like to advance the following.

# The original objectives and their implementation

The control system created in the course of preparing the reform, and reflecting the essential principles of the reform and its comprehensive concept has proven its viability: between 1968–1973 the Hungarian economy functioned better and in better conformity with the plan that prior to the reform. Only this basic proposition can be the starting point of revision and development even if we are examining our present difficulties.

As a matter of fact, the reform concept was not implemented in its entirety - partly for objective reasons - and in many respects it was implemented only formally. In the recent past we have made more backward steps than forward ones - partly we have been forced to. Therefore, the results of the reform can be taken to account only as tendencies considering the *de facto* prevailing methods of economic control.

When implementing the 1968 reform of economic control we assumed – among other things – that the *conditions* for a successful functioning of the new control system would be created continually, partly as a result of the functioning of the mechanism, partly in the wake of clarifying some questions of principle which remained unanswered at the time the reform was being prepared.

It was a particularly important assumption that a balance between supply and demand would come about on the internal markets (the market of consumer goods, that of investment goods etc.), and even some excess supply would emerge; instead of competition among buyers that among sellers would develop. Obviously, this precondition was not established at the date of the reform. Not least because the necessary preconditions had not been created, or only to an unsatisfactory extent, the reform brought about a transitory system.\* Instead of becoming complete, the transitory

\*After the 1966 resolution of the Central Committee of the Hungarian Socialist Workers' Party lectures were held in factories and offices about the reform in preparation. We described the advantages of the new system of investments, foreign trade, producer prices etc. But it soon turned out from the contributions that people were interested basically in two problems: whether there would be unemployment or inflation. Caution was therefore warranted both politically and economically. The new system was introduced full-scale on January 1st, 1968, but also many elements of the old control system were retained, with the idea that they would be eliminated gradually as the reform would become consolidated. E.g. we immediately introduced the price system conforming to the spirit of the reform but, for the sake of caution, we temporarily set fixed prices on such products and services which should have been classified, in principle, as belonging to some more flexible price form.

character of the new mechanism became stable and, as I have already indicated, the changes were in many respects opposed to the concept of the mechanism. The fact that the transitory system became stable caused also damages, that may compromise the reform. Expressing the opinion of many people, a young economist put it in a conversation in this way: "In our country, as opposed to the objectives of the system, a system of control of the direct type, relying on instructions is in force. Of course, not the pre-1968 system, it is actually better, but still one based on instructions." Although I do by far not agree with this opinion, it still cannot be said to be quite unfounded. It is worthwhile reflecting what the real basis of this rather widespread notion is. I have already mentioned that the reform of the mechanism has been implemented in many respects only formally and partially. This is well exemplified by the reform of the *price mechanism*. In this respect the changes decided upon *were formally* carried out:

- from a system in which almost all producer and consumer prices were officially fixed we shifted to a mixed price system. It is an essential ingredient of the mechanism. (It is a different problem that there might have been and there may be some who thought or are still thinking of a completely free price system.) But the substance is that the *ratio* of official price setting *de iure* and even more *de facto* corresponds to the state thought to be transitory. In fact the restrictions related to prices have become very numerous beginning with the early seventies;

- industrial producer prices were given a multi-channel price type base;

- the system of turnover taxes was changed together with its role; essentially we shifted to a single-level price system, eliminating the differential taxation;

- isolation of the price systems of various economic spheres was substantially reduced;

- forced paths were mostly abolished in turnover;

- the system of trade margins was substantially changed.

The *extent* of the formal changes was unsatisfactory. We can even less be satisfied if we examine the *meritory* changes in the price mechanism.

We expected from the reformed price mechanism that the non-officially set prices would mediate between supply and demand (by producers, consumers, foreign trade) in two directions. On the one hand prices should transmit the changes in *supply* conditions (inclusive of import conditions) to demand, regulating the latter. This effect-mechanism asserted itself also in the mechanism prior to the reform and – if cumbersomely and with lags – it asserts itself also today. On the other hand prices should transmit the changes in the level and pattern of *demand* (inclusive of demand on the export markets) to supply (and the changes in export prices should directly affect supply), regulating the latter. The real new element would have been this reverse effect, or rather, it should have been. To wit: the changes in demand relative to supply (its growth or decline) induce price changes on the market and – taking supply conditions for given – through improving profitability this stimulates the increase of production and supply of the given product. As opposed to that, falling profitability induces a reduction of the production and supply of the given

product or group of products. But this complete effect-mechanism does not function or functions only partially and imperfectly.

Above all, the rigidity of prices impedes the assertion of the chain. In the sphere of consumer goods the ratio of fixed prices is too high and, because of the strong rise in the price level maximum prices have become practically fixed in almost every sphere. Further, the prescriptions of indirect price formation (e.g. the obligatory schemata for cost calculations) make price frequently even more rigid than in the fixed price form. (A positive step has been the recent change whereby products of the light industry have been classified as having free producer prices.) And the fact that even free prices can be less and less called "free" is indicated by the compulsion to give advance notice of intended price hikes, by the legal Damocles sword of "unfair profits", by social control etc. (I do not claim that under the given conditions these restrictions are quite superfluous.) The analysis already mentioned, carried out in 1972, showed that only 20 per cent of changes in free prices could be traced back to market effects; 80 per cent were secondary effects of official price changes or of changes in income taxation. I do not know of any similar computation made since then, but I am of the opinion that in the meantime proportions could have hardly changed in favour of the former group.

Finally there may arise contradictions from the fact that prices of a given product are classified into different forms by spheres or vertical stages (producer price, consumer price, foreign trade price, etc.).\*

I think that the most important reason for the unsatisfactory operation of the transmission between demand, prices and profitability is not the rigidity of prices. Demand deviating from supply releases a change in prices even in a system of fixed prices sooner or later. True, in such a price system hidden changes are a highly important form of price movements. Instead of open price changes because of the rigidity of the price system we frequently meet even today with deteriorating quality, narrowing the range of assortment and other changes that serve the interests of sellers but run counter to the demands and interests of buyers.

Even when considering all this, it cannot be doubted that *the Hungarian price* system is more flexible today than it was prior to 1968. The deviation of demand from supply, particularly a demand exceeding supply causes changes in prices and profitability more frequently than was earlier the case. But the chain of interrelations usually ceases at this point: a change in the profitability of the firm does not release a corresponding change in supply; a rise in prices and an improvement of profitability does not generally lead to increased supply. (While, if the product becomes unprofitable, its production is stopped sooner.) As a matter of fact, precisely this part of the chain would be the novel and essential thing in our system of management. If this effect-mechanism functioned

\*It frequently occurs that a firm producing some product for export on the basis of a foreign trade contract covering several years, that is, practically at fixed prices, is supplied with semi-finished products at rising free prices. As a consequence, the final product may involve losses, export may become inefficient, while the profit of the supplier keeps rising.

properly, the further effect would be, in the majority of cases, that increased supply relative to demand would reduce the price (and thus put a brake on the rise in the general price level). This phenomenon is almost completely missing from our economy. We may also put it in this manner: the fact *that prices hardly control supply is a factor of the inflationary effect*. I do not agree with the idea that it is in principle impossible in Hungary to reduce the prices of a part of the products (while the general price level is rising). The lack of this shows the imperfect functioning of the market mechanism. (This is also an explanation for the frequent shortage of cheap articles.)

The lack of the chain between demand - price - profitability - supply - price or its insufficiency can be explained directly by the fact that supply is generally insufficient relative to demand, that there is a competition of buyers, not of sellers. This is because, e.g. demand and supply of consumer goods is in equilibrium both globally and by groups of products - apart from certain exceptions - (even if this equilibrium is imperfect, and there are considerable imbalances by kinds and assortments of products) and the above mentioned transmission operates at best imperfectly even in the sphere of consumer goods.

In this context I return now to the necessary, mostly missing and even unclarified conditions of the Hungarian mechanism,

#### Conditions for improving the mechanism

If we examine why the conditions necessary for the full-scale functioning of the economic mechanism were only partially brought about and, therefore, such objectives as making management more efficient and flexible, have been only partially realized, we can reach the conclusion that the causes of the lag are *of varying type*. There are no sharp lines of division between the types.

My statements serve as propositions. I do not consider a task of this article to elaborate them. I wish to prove only that

- we have to carry through the reform of the mechanism consistently, we have to implement its basic principles in a comprehensive and consistent manner. Partial and occasional measures moving only on the surface cannot substitute for this.

- "You cannot step twice into the same river". The reform can and should be further developed by taking into account the changes having taken place in the last ten years and the experience accumulated in the meantime. We have to revise the principles, aims, and methods formulated and applied in the course of the 1968 reform - or perhaps not formulated and not applied - by relying on our present knowledge.

I wish to support this line of reasoning by the following typification of the missing conditions of the mechanism.

1. Certain assumptions were realistic, but we *failed* to create the conditions which would be in harmony with these assumptions. I think first of all of the investment policy,

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more exactly of the development of productive fixed assets.\* (The structure and cyclicality of investments.) Instead of having gradually eliminated the chronic shortage of capital and labour we regularly reproduce them. The fundamental reason is that shortages persist in the whole of the economy, that the market is a sellers' market. I have already indicated that although there is a global balance between demand and supply in the sphere of consumer articles, the situation of the investment sphere (and, related to it, that, of the foreign trade) creates constant tensions, structural disequilibria (and operates price raising factors).

One of the aims of the reform and a precondition of its successful functioning is that there should be equilibrium on the market of investment goods. It is an invariably topical task, and, as regards its substance, entirely depending on us that economic policy should secure this equilibrium. But the aims also included that demand for investments should be determined by purchasing power, as say, on the market of consumer goods (and not arbitrarily expanded claims); that, with some simplification, solvency should determine the actual claims and not the needs should determine solvency. It seems, however, that this aim was irrealistic; a market in the traditional sense cannot be created in the sphere of investments.

To gradually eliminate overcentralization of the Hungarian industry, and to increase the number of medium and small enterprises would have been necessary even independently of the reform. This belongs, as a matter of fact, into the group: "it is a realistic aim, but we did something else". Although a positive change started between 1968 and 1971 even in this respect, after 1971 organizational centralization has increased.

It was a realistic and important assumption and aim of the reform that spheres of decision should be divided between the centre and the firms in such a way that the possibility of clear survey and decision-making should be in harmony. Similarly, it was an assumption and an aim that conditions of management can be created for enterprises under which their foresight, calculations and decision can rely on safe foundations. To these conditions belongs the relative stability of the control system. (The activity of the firms should concentrate on adaptating to market conditions, not to expected changes in the control system.) Yet we should not seccure stability for the low-efficiency firm. We could have brought about any of the above, the lag depended and continues to depend essentially on ourselves.

2. Another group of the assumptions was realistic when the reform was prepared, but has become irrealistic in consequence of later events. From among them the assumptions about external relations are the most important.

Obviously, the condition for a supply competition cannot be created in the Hungarian economy in isolation. The small size of the country excludes that we should attempt to operate the internal market as if through an autarkic approach. (Frequently it is a real technical and, at the same time, an economically rational requirement that a given product should be produced only in a single or at most in two large enterprises.) We

\*See Zsuzsa Dániel [1] and Robert Hoch [2].

thus intended to give an outstanding role to import competition. From this, on the one hand, the necessity of enhanced participation in the international division of labour follows right away. (In this context the problem of convertibility of the forint unavoidably emerges.) On the other hand, and this is what I consider now more important for the given subject, it was an implicit or explicit [3] assumption that multilateral commodity and monetary relations would strengthen also CMEA relations. It was not an irrealistic assumption that the character of external relations would change first perhaps among certain European socialist countries and this would then widen in scope.

There was a major probability that, simultaneously with the Hungarian reform, also other socialist countries would develop their system of economic control in similar direction. Because of well-known historical reasons this did not happen, our reform remained isolated within the CMEA. In the long run it is a realistic alternative that our earlier expectations regarding the changes in the character of CMEA relationships will come true. This is indicated by the experiments going on now also in the European socialist countries.

Completion of the reform was hindered by the unforeseen changes which took place in the seventies in international economic relations in consequence of the basic changes in the world economy.

3. As a matter of fact, I do not know about certain assumptions whether they were realistic or irrealistic. *They seem to be irrealistic in the short run*. But in the long run we cannot renounce to seriously deal with them. Let us review some of them:

- It was obvious that while the management relying on plans broken down (addressed) required a horizontal control, an indirectly controlled planned economy demands vertical control. In the period of the reform it was assumed that the sectoral control of the economy would be later replaced by a highly centralized control divided in some other way. It was expectable that in the first-step of the reform a deep change in the structure of government administration could not be aimed at. Following the reform of the economic mechanism it was also expected that socialist democracy would develop considerably in every sphere and on every level of society. A deep change in the structure of government administration did not occur and in the given system of management the division of the economy according to sectoral interests entailed graver consequences than before 1968.

- As a matter of fact, it is a partial problem of organizing the economy, but an outstanding one, that *foreign trading as a separately organized sector*, divorced from production, should cease, or should be put between rational limits; and mainly that its ministerial and enterprise monopoly nature should be eliminated.

- In the reform ideas it was an important assumption that assets would flow directly between enterprises of different sectors and subsectors, determined by interests in profitability. This was realized only in a very narrow scope.

4. Many assumptions were *irrealistic* from the outset. Some examples:

- Identical conditions for competition should be brought about for every firm. As a matter of fact, the conditions of big and small enterprises, of firms releasing mostly products with free prices and of those with officially fixed prices, of enterprises produc-

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ing mainly for western markets and of those for mainly CMEA markets etc. cannot be identical. It follows that the uniform control system does not affect the enterprises identically, it does not control them identically.

- The identical initial conditions would be created - among other things - with such starting prices which reflect the real inputs, thus securing identical starting profits. In this assumption it was irrealistic that such prices could be centrally established.

- Perhaps what is most important: it was a rather general assumption that profit exists and functions as a uniform enterprise category and interest in profit would essentially solve structural control both within firms and within sectors, and also among subsectors and sectors, both in the short and in the long run. In short: there may have been such people who perhaps belived that our enterprises would operate according to the principles of free-market capitalism. As a matter of fact, profit is not a uniform category in the contemporary capitalist large firms (e.g. the profit of the big share-holders and the dividends of the small share-holders); the interests of owners frequently conflict with those of the managers; enterprise strategy is determined on the basis of long-term profit motives, but the interest is not even expressed in terms of profit (development of production, retaining or increasing market shares etc.). And, last but not least, the state also has a major role in shaping the structure of modern capitalist economy. (Nevertheless, it is also true: the conditions are generally missing in Hungary for the present system of profit motive to exert its positive effects.)

5. Many fundamental problems of principle were not clarified before the reform and have not been clarified ever since then. A confrontation of differences in views on questions of principle, their open discussion, did not take place in the years following the introduction of the reform. Discussions have centred up to now mainly on methodological, technical problems.

Some open questions, again only by way of example:

- What is the scope of central and enterprise decisions? In other words, what is the relationship between economic policy, the plan and the market? \* What role is played in the central decisions by profitability as a criterion? In more general terms: can national economic efficiency be reduced to national economic profitability? What is the role in economic guidance of the so-called "phisical approach" and of the so-called "value-approach"?

- Who or what and relying on what criteria checks and evaluates the leadership of the enterprise? I cannot take it namely as an answer that - again with some simplifica-

\*Many have already raised that at the time of preparing the reform there was no economic policy strategy available; thus, in this respect, the reform had nothing to take into account. As a matter of fact, however, economic policy and economy-wide planning are immanent parts of socialist economic control. The regulators are not ends in themselves, they have to mediate between the plan and the enterprise (cooperative) sphere. Long-term economy-wide planning started in 1968, the first year of the reform. There is no room here for attempting to explain what reasons made long-term planning necessary. One of the important reasons was that it became obvious: without an economic policy and social policy strategy the regulators cannot be oriented, nor can the market, the economy, the whole development of society.

tion – practice has returned to the pre-reform solution (fully adequate then), that the sectoral ministry checks whether the firm has fulfilled the annual plan. (The comparison to the base-year has actually persisted and even gained strength in recent times, actually institutionalized by the existing system of control.)

- Do we think that interest in profits is identical with the annual profit at any time, or do we attempt to work out a system of motivation with long-term profit in view and link the interests of managers to it? -(The large capitalist corporations have been working for some longer time already not on the basis of short-term profit motive, and the interests of the managers are linked basically to the fulfilment of the strategic objectives of the firm.) This also implies the question whether we believe it to be compatible with socialism if we create conflicting interests between enterprise executives and their subordinates. As a matter of fact, it is unavoidable that conflicts should arise at times between long-term enterprise interests and increasing the profit of a given year at any price. Today also the interest of the enterprise – and the national economy – but in harmony with those of the working collective. (The institutionalized system of comparisons with the base-year do not allow anyway that the leaders of the firm choose in some year tactics resulting in the stagnation or precisely the decline of profits.)

The above outlined situation can be handed in essentially two ways.

One is to do what we have done up to now. That is, we take short-term measures, modify (and complicate) the control system every year. The political risk of this road is – at least in the short run – minimal, indeed. But its economic risk is great, because the economy will operate with rather low efficiency and the contradictions, hindering development, will accumulate.

The other possibility is a principled revision and improvement of our system of economic control. I am of the opinion that this task must not be delayed for too long.

#### References

- 1. DÁNIEL, ZS.: Reflections on the development and composition of the national wealth of Hungary. Acta Oeconomica, Vol. 22, Nos 3-4 (1979)
- 2. HOCH, R.: Further reflections on the development and composition of the national wealth of Hungary. Acta Oeconomica, Vol. 22, Nos 3-4 (1979)
- 3. AUSCH, S.: Theory and practice of CMEA cooperation. Budapest, 1972. Akadémiai Kiadó. 270 p.

# ИЗМЕНЕНИЕ РЕГУЛИРОВАНИЯ ИЛИ ДАЛЬНЕЙШЕЕ РАЗВИТИЕ ХОЗЯЙСТВЕННОГО МЕХАНИЗМА?

P. XOX

Новая система управления экономикой и хозяйственной деятельностью, введенная в Венгрии десять лет тому назад, доказала свою жизнеспособность и функционирует более результативно, чем дореформенный механизм. Эти достижения заслуживают внимания в особенности потому, что во многом отношении эта реформа осуществлялась лишь частично; вместо дальнейшего совершенствования она застыла в переходном состоянии, а в отдельных областях были даже сделаны шаги в попятном направлении. Все это является источником многих трудностей и противоречий. Из этого следует необходимость дальнейшего развития хозяйственного механизма.

Перед дальнейшим развитием следует поставить двоякое требование: 1. Необходимо последовательно довести до конца реформу хозяйственного механизма, всесторонне и последовательно осуществить основные принципы реформы. Вместо этого нельзя обойтись частичными и случайными, скользящими по поверхности, мерами. 2. Реформу можно развивать дальше лишь при самом далеко идущем учете изменений и накопленного опыта прошедших лет.

Acta Oeconomica, Vol. 23 (3-4), pp. 257-273 (1979)

# L. ANTAL

# DEVELOPMENT – WITH SOME DIGRESSION THE HUNGARIAN ECONOMIC MECHANISM IN THE SEVENTIES

Evolution of the reform of the economic mechanism, introduced in 1968, stopped short already in the early seventies and later continual backward steps were taken. As a result, since 1975–76 a mechanism of "detailing regulators" has been functioning in Hungary, formulated basically in terms of prices and financial categories (but not refraining from administrative measures either). The earlier instructions have been replaced by "suasion" of the control agencies that have carefully preserved the forms and techniques of decentralized control. In the author's opinion, the present serious difficulties of the Hungarian economy can be overcome, that is, the foreign trade equilibrium can be restored only by increasing competition and not by seclusion from the world economy; a deep change is required in the economic mechanism in the direction of consistently proceeding along the way taken in 1968.

In recent years deep changes have started in the internal and external conditions of development of the Hungarian economy. Similarly to the majority of the European socialist countries, the process of entering the intensive stage of development started in the mid- and late sixties and has not been concluded yet. As every qualitative change, also adaptation to changes in the conditions of growth is preceded by a long transitional period characterized by tensions and sharpening conflicts. The unfavourable changes in the conditions of foreign trade in the seventies, which proved to be lasting, intensified the difficulties involved in the change in the stage of growth. As a consequence, the conditions of growth have become palpably more restricted, the equilibrium disturbances accompanying development have become deeper and more frequent, and the weak spots of the economic mechanism have become more sharply exposed. In a few years we had to recognize that we have to cope not with some transitory difficulty that can be overcome with a few resolute measures, but — to use a fashionable term — a "new situation" has come about.

We have thus to revalue our economic position and work out a well-founded strategy which

1. would set out from an illusion-free judgment of the possibilities for growth, and would realistically reckon with the lasting changes in the internal and external conditions of economic growth, with its importance on the one hand, and – what is even more difficult – with the time requirements of adaptation and its socio-economic constraints on the other;

2. would reason in terms of *processes*, not in those of the objective to be attained, while keeping in view the *historical* character of reproduction. Its initial step

would be to disclose the process of emergence from the present difficult situation – the development of the reform of the mechanism – and, as its condition, to mobilize the social energies needed for this purpose. The long-term policy ideas would be formulated in strict harmony with the ideas about the development of the economic mechanism;

3. would be capable of abondoning the illusion that – with proper gradualness – the efforts with which the economic policy is necessarily looking for some kind of compromise could be harmonized without pain;\*

4. would recognize that no meritory progress could be made until the inherited order of values is not changed, because it influences the approach of central control, enterprise management and the wide public opinion, which considers the extremely wide interpretation of stability – almost amounting to conservation of the status quo - an adequate characteristic of socialism.\*\*

As a matter of fact, the necessity of correcting the economic policy was formulated already in the fifth five-year plan, covering 1976-1980, and in the course of devising the modifications of regulators in 1975-76. But the program of careful adaptation by slow degrees has not attained the expected results.\*\*\* In view of this, definite measures followed in 1979 and 1980 which prove to be indeed suitable for considerably reducing the surplus of domestic consumption and investment, and for a stricter and more consistent allocation of supports and facilities. These strict measures are indispensable for overcoming the present economic difficulties, but in themselves they do not – or rather: cannot – bring a lasting solution. Un my opinion, the pivotal problem of evolution is a deep change in the practice of the economic mechanism in the wider sense, which relies on the experience of many years and has become an ingrained habit. Thus, what is needed is a gradual but consistent

\*Such are, e.g., increasing export capacities and preferring development aimed at import substitution; development of the infrastructure and restriction of investments; increasing the role of material incentives but slowing down the growth of consumption and levelling family incomes; or strong changes in structure to adapt to world market conditions while preserving stability of the firms.

\*\*The notion of stability includes efforts at unchanged producer and consumer prices; keeping executives by all means in leading positions; levelling of wages, interpretation of full employment as the right to a given job; a system of central interference whereby large enterprises cannot fail, cannot contract and even their transitory difficulties are eliminated; distinction between factors depending on and independent of the firm; in general, efforts at slow changes, without conflicts, in the established and accustomed practice of management.

\*\*\*Only very modest results were attained in improving external equilibrium, and, similarly, in suppressing uneconomic production, products and exports. By 1980 the level of national income will be somewhat lower, while that of investments much higher than provided for in the fifth five-year plan. Thus, in the next five-year period solutions have to be found for substantially graver tensions than those characterizing the working of the fifth five-year plan. For a detailed evaluation of processes between 1876–78 and their confrontation with plan figures see the article by István *Huszár* [11].

program, embracing not only the price system and the financial regulators, but also the institutional system of planning, the organizational structure of industry, the role of publicity in the practice of decisions, a comprehensive regulation of all personal incomes, — that would naturally comprise also the widely interpreted economic, social and political conditions of implementation as well. Without starting such an unambiguous and definite process the efforts at modification of economic policy or intentions to provide a more consistent economic control in isolated partial areas are bound to become side-tracked, or at least will become weakened by the handicaps of the decision mechanism, the motivation and the possibilities for asserting those interests, determined by the given system of institutions and organization.

# On the role of economic mechanism

I am going to use the notion of the *economic mechanism* – in contrast with the unfortunately spreading everyday concept in Hungary – in its original, wider sense. Beyond planning, the system of incentives and financial regulators, and the organizational system of enterprises and economic control organs (which make up together the system of economic control), we include here also the mechanism of the higher-level decisions, the informal relationships among the economic control institutions, social organs and enterprises, and the real distribution of decision possibilities among decision levels (not necessarily corresponding to the valid legal regulations), the intra-firm control and motivation too. In the background of all these we find the definite system of interest and power relations; finally, the automatisms, behavioural, reaction and adaptation norms considerably influenced by these factors also belong here. The real functioning of an economic system\* can be characterized in some period with the essential and relatively stable (self-reproducing) elements of all these.

Within that, the system of economic control is restricted to the factors that can be directly influenced by the centre. By minor or major changes in the system of control the centre may induce processes which then affect, through their own movements, also the deeper strata of interest relations and the social relationships that cannot be directly regulated.\*\*

\*The economic mechanism is defined in this sense, deduced from the relations of production by László *Csapó* [2]. The operational model of the economy is similarly interpreted by W. *Brus* [3] and Tamás *Nagy* [4].

\*\*This statement related to the economic mechanism is formulated with more general validity by Zsuzsa Ferge: "The fact itself that a process is influenced by deliberately taken (central or marcro-level) decisions, does not abolish the spontaneous nature of the process... Thus, we can speak about a deliberately organized social process only if this deliberateness covers also the aim and direction of operation of the process. Such deliberateness, at least with macro-level processes, assumed the absence of antagonistic social conflicts, and the approximate coincidence of the subjective and objective aspects of individual actions. Under our present conditions only the first condition is met, the structural conditions of the second have only partially developed." [5]

If this movement does not start or induces in the domain of automatisms (reactions) movements not coinciding with the intentions, then the changes initiated by the centre will be lopsided or formal. Namely, the character of the economic mechanism is shaped most strongly by the relations of the enterprises, and the various institutions, the real distribution of decision and influence, the mechanism of high-level decisions, the web of the concrete division of labour among enterprises, by the possibilities and motivations of people active on the different levels - that is, precisely by the factors that cannot be regulated directly. However, the elements of the incentive system which lend themselves to formalization - pricing and cost accounting, taxation parameters, the type and formula of wage control, the rules of the game in investments and financing - will be unavoidably subordinated to the essential elements of the economic mechanism and to the system of conditions determined by the perspectivic efforts of economic policy. If not in some other way, then this happens through the informal control channels developing in the background: with the help of more refined methods of influence and suasion, of a decision practice frequently deviating from the one set out in principle. Namely, the reactions aimed at the solution of tensions originating in the economy appear - in conformity with the logic of the given mechanism (within it of the organizational and institutional system) - in the form of efforts at retaining and strengthening the position of organizations participating in the preparation of decisions and thus, precisely on this account, they obstruct further development.

E.g. the control agencies attempt to solve problems of cooperation among enterprises in Hungary in the majority of cases, on the initiative of the directly interested major firms, through organizational measures - by means of fusion or amalgamation. This again - although it more or less eliminates the cooperation disturbances emerging at the given place for the moment - restricts the adaptability of the economy further, increases the shortage of background industries and leads to building up and strengthening enterprise autarky. Similarly, the permanent shortage may result in making certain enterprises "responsible for supply". Such reaction again restricts competition and market pressure, strengthens monopolistic positions and the necessity of individual interventions in the operation of the firm, [6] Similarly, the elimination of some capacity (or its conversion to some radically different activity) results in the short run in absolute losses, perhaps needing additional imports, and is particularly disturbing in a disequilibrium situation. This can be warded off through various interferences, but at the price that uneconomic activities persist in the best case and are reproduced and expanded in the worst. What is most important: both the control agencies and the firms consider it natural that the disadvantages independent from the firm - that is, those caused by the market - should be eliminated. Elimination of uneconomic production is dragging along so slowly precisely because it would cause either a chain of shortage situations or uneconomic production of further products. Analysing individual decisions by themselves one cannot qualify as irrational the investments aimed at the elimination of physical

shortages or at the substitution of western imports – even if they are opposed to the central decisions intended to restrict the growth of investments. But the combined effect of such efforts is in every case, without exception, a growth of tensions – in this case of the deficit of the balance of trade (of course, now in other areas than where the new capacities have been created). In the wake of all that the necessity of new and justified central interventions emerges.

The examples could be continued. Their common character is that reactions, bridgeing the short-term tensions, make the same contradictions graver in the long run, and thus result in a series of such situations in which intervention of a similar type is difficult to avoid, therefore the dependence relationships between control organs and enterprises are reproduced.

The economic mechanism is not subordinated to economic policy in the wider sense (not even in the sense that it would play a secondary role in the framework of mutual effects). The mechanism is, namely, "present" already when objectives are selected. Economic policy can never be considered as the autonomous decision of a uniform centre and much less as an a priori social optimum, (the latter would amount to declaring the former infallible). The shaping of the system of goals is unavoidably a process of harmonizing conflicting interests among economic control institutions, social organs and large firms with important political weight - all having particular interests of their own. In the course of implementing the goals of economic policy all these organizations have the possibility to deviate from the declared lines (even if formally following them).\* Thus, in its relations with economic policy the economic mechanism is not an instrument, but a factor of growth, or if you like, a constraint on development, and the most important one in whose shaping we have considerable degree of freedom to decide in the long run, (Provided, of course, that we decide on harmonized changes of such portent which influence also the said relations that are not to be influenced directly.)

In the final analysis, also the other question, the confrontation of approaches concentrating on goals and on processes, is related to the relationship between the economic mechanism and economic policy. We were and still are inclined even today – perhaps "overinterpreting" the possibilities deriving from the dominating role of state ownership, – to "invent" simply some kind of ideal state (e.g. foreign trade, investment or production structures "optimally" corresponding to our conditions, perhaps a consistent price system, or – what is not the same – a financial system applying individual solutions really only in exceptional cases), and to "project backwards" what is to be done from the more or less unambiguously outlined goals. This way of reasoning is rarely stated in these terms but it is influencing the decisions translating the general principles into practice and in some cases even the state-

\*",...if the direction of the actions of a great enough number of persons or groups who are also important enough does not coincide with economic policy concepts, then their action will modify the direction of concepts in practice; ..." writes candidly I. Friss [7].

ments of principle; it underestimates the interest relationships, the social forces manifesting themselves in the continuity of economic processes, in their "inertia", their trend-like paths. As a matter of fact, practice provides many such situations when a decision might be "in principle" implemented – that is, considering merely the available resources, the technical and technological determination – but, taking into account also the motive powers of the economic mechanism, the established practice of decisions, and the restrictions inherent in them, it becomes highly questionable.

It derives from such an approach that the discussions about the economic mechanism have been always characterized to a minor or major extent by some false expectation, some *control illusion* related to some sub-system of the whole of the mechanism – handled, in addition, as if it could be arbitrarily shaped from the centre. From this reasoning, I feel, we are not free even today. From a certain aspect, all deficiencies and contradictions of the control system are rooted partly in conditions that cannot be influenced by us, and partly, on the contrary, in subjective reasons: in planning mistakes, misinterpretation of the situation, frequently not so much in economic but rather in moral categories as "caution", "inconsistency" or in more hazy notions as "problems of approach". From this the conclusion may be derived: we need an arrangement beginning everything anew and after that "only" a consistent behaviour of the centre is needed – meaning a completely centralized system of decision, selecting exclusively on the basis of rationality – and the viability of the economic control system is secured.

Such "rearrangement" has been undertaken in Hungary recently on more than one occasion. At the beginning of the preparatory work bold and consistent changes were provided for, emphasizing that the concomitant conflict situations would be faced openly. Later these changes became mild, cautious, lopsided corrections. Some problems were solved indeed, but they did not come up to the expectations which assumed that after the rearrangement quick expansion of the role of individual solutions would become avoidable. In fact, the period seems to shorten more and more in which the distortion of prices and regulators necessitating new arrangements takes place.

The essential elements of an economic control concept setting out from an "ideal" model and a system of incentives serving it and modifiable if necessary (and at will) – namely-a "consistent" centre, enterprise interests than can be unlimitedly moulded to conform to either the long-term or to the topical objectives at any time – are products of a reasoning perceiving the picture of economy – with some exaggeration – as being free from political, and social aspects and breaking down the socio-economic processes into a series of states to be attained. In its background we may find such simplified interpretation of the mechanism, simultaneously overestimating the role of central consciousness, which tacitly assumes that, in conformity with the hierarchical division, lower interests are unambigously and rigidly subordinated to the "higher" interests. (And this problem is nothing else than what has been raised above as the relationship between

economic policy and the economic mechanism: concluding "backwards" from the goals assumes the super-ordination of economic policy, while the approach concentrating on the process attributes greater — in certain cases determining — importance to the economic mechanism. I hope it will turn out from what follows which these "certain cases" are.)

#### Development path of the Hungarian economic mechanism

The formulation of concrete proposals for deep changes in the economic mechanism – which is today a condition for finally breaking with the unfavourable tendencies and for the reality of an economic policy setting the *simultaneous* targets of improving equilibrium and boosting export capacity<sup>\*</sup> – must be preceded by getting thoroughly acquainted with the motive powers of the now functioning economic mechanism.

There can be no doubt that the reform introduced in 1968 meant a qualitative change as against the earlier control system, in spite of its several compromises, solutions that were meant to be transitory and the widespread use of "brakes".\*\* But the evolution of the reform stopped short already in the early seventies, in spite of favourable economic results, international economic and political conditions that could be said ideal, and following that some backward steps were made. Next we reacted to the world market price explosion with a delay and not with too great conviction, assuming that the exclusion of external market impulses from the internal processes, and later its strong damping would be suited for maintaining the earlier smooth balanced growth we got used to, for avoiding the economic conflicts (necessarily having political implications). The result was – quite contrary to central intentions – a conspicuous growth in the distance between enterprise efforts and economic rationality. This again evoked in a short time massive central initiatives, "actions", called upon to substitute for economic coercion and aimed at certain partial areas. "Special incentives" aimed at concrete tasks were proliferating particularly with exports, but also elsewhere. To the general, in principle

\*The article by Rezső Nyers, and Márton Tardos [8] surveys the possible strategic alternatives of economic development and its pitfalls. The authors prove convincingly that neither seclusion from the world market, nor a highly centralized development policy, concentrating on a few closed systems, provide a perspective for Hungary. The only passable way remains evolution of export capacities in a wide scope. But this assumes management of the entrepreneurial type, the strengthening of adaptability – it is, therefore, decisively a problem of the mechanism.

\*\*"Brakes" was the name devised for certain planned changes that were postponed. Such were the following: approximating the relative consumer prices to the relative input proportions, allowing that the profits of the firms should not be compulsorily divided between development objectives and personal incomes, the larger weight in price formation of the more flexible price forms, suppression of subsidies and priorities, increasing the share of the decentralized sphere within investments and consolidation of the financial equilibrium. It was an essential compromise that the revision of the organization of enterprises and of the higher control organs was postponed (a few initial steps were taken to break up monopolistic enterprise organizations, but these proved to be weak and peripheral).

correct and optimal regulators gradually a mass of individual interferences was assigned tailored to the cases in question. The enterprises qualifying as important ones became exempted from the unfavourable consequences of the modified regulators. Thus, the generally valid regulators, prices etc. could have been even "very good" in themselves, but they did not control. Finally, in the course of the gradually starting and, from 1976 on, more or less open rearrangement, *a mechanism 'breaking down' the regulators* (but not refraining from administrative tools, either) became established, which carefully preserved the forms and techniques of decentralized economic control.

It would be tempting to trace back the retrograde measures to objective economic conditions, to shock-like external impulses. But such explanation is simply not true. As a matter of fact, the shifting of decisions onto higher level, particularly the recentralization of investment decisions, the weakening of the normative character of the control system, the revival of bargaining relationships between enterprises and control agencies,\* the distinguished handling of the large enterprises — in harmony with the concrete "expectations"\*\* formulated in the plans judged by the control agencies — etc. that is, the majority of the tendencies of this "backward rearrangement" started and took roots already before the price explosion. It is also worth reflecting that the tensions of disequilibrium appearing in the early seventies, and then the difficulties deriving from the crisis of world economy could have served for basis, at least as much, for a bolder exploitation of possibilities inherent in decentralized control as for the "break" that actually occurred in reality.

The picture becomes even more characteristic in view of the fact that in the course of the 1975–76 modifications of prices and regulators the central intention was unambiguously to push individual solutions to the background and to make economic units feel the external impulses, that is, the gradual elimination of control through individual instruments, but the result did not at all correspond to these intentions.

We may ask the question whether perhaps the conditions were not mature, the regulators, prices etc. were wrong, whether we overemphasized the qualitative nature of the reform or were too optimistic as regards the possibility of evolution (e.g. because we underestimated the forces of inertia deriving from economic conditions or consciousness), whether the commanders (commanding bodies) of economic control made mistakes, whether the enterprise executives did not come up to their tasks or whether the "break" had some other actual reason. There can be no doubt that all of the factors listed for illustration contributed to the difficulties, yet I believe that without a knowledge of the right answer, without clarification of the order of importance of the causes it cannot be excluded that we shall take wrong paths also in the future.

For an understanding of the substance and causes of the process of "backward rearrangement" it will be most expedient to examine the period of the fifth five-year plan

\*\*The expression of the Hungarian professional jargon well expresses the substance of the matter: it is less than an "order", but essentially more than saying "I should like..."

<sup>\*</sup>For the practical functioning of such relationships see the article by Teréz Laky [9]

(1976–1980) and the consequences of the modification of regulators implemented in 1975–76. In this period, namely, the deviation of processes taking place in reality from central intentions convincingly proves how the scope of movement of conscious central control becomes narrowed down in the medium of the power positions of the given economic mechanism, the control organs, the social organs and the large firms (while the number and weight of central interventions is continually growing).

# Objectives of the fifth five-year plan (1976-1980)

The working out of the new five-year plan (in 1974 and 1975) fell precisely to the period when it became step by step obvious that the tensions would be deeper and more lasting than originally conceived: with the burdens of the substantial external resources drawn in, the processes taking place after 1973 would leave price losses amounting to about half a year's national income to the 1975-80 period. The gradual recognition of realities (in this case, of the real extent of price losses, of the well-founded rate of growth) led in the course of repeated elaboration of the plan to a "permanent shortage of resources for planning" and to sharpening conflicts of interest around the allocation of the ever narrowing resources. In the course of specifying the plan, with the progress of time, the need for drawing in external resources gradually increased and the harmony between resources and possible uses was brought about by reckoning with increasing improvement of efficiency (although this was not justified by the economic conditions which continued to grow difficult), besides, the targets for the growth of consumption were somewhat moderated. The fact that the new plan was – with the term then used – "realistically tense" may be related to that; this turns out from the main targets. But it becomes even more obvious that the plan was tense if we examine somewhat more closely the structure of accumulation, the background of the efforts expressed in the plan.

The targets of the plan included maintenance of the growth rate accustomed to, and the necessary state of being free from shocks which it was intended to support with a greater improvement of efficiency than had been earlier provided for and by increasing the use of external resources. The plan provided for a fast improvement in the structure of production, mainly with a view to boosting capacities serving exports to the West, which was expressed mainly in the shifts in directions of sales.\* In the preceding fifteen years an annual 5–6 per cent rate of growth was accompanied by an 8–9 per cent growth rate of investments. A break in this trend was planned in a period when the structure of investments strongly shifted towards the capital intensive extracting industries (in the basic materials and energy industries a 55 per cent, in the manufacturing industry a 10 per cent growth of investments was planned against the preceding five years.) [11] On the one hand, this squeezed the possibility of export-oriented development of the manufacturing industry between narrow limits (though this is decisive

\*While output was to increase by 30-32 per cent, domestic sales by 23-25 per cent, exports to the rouble area by 40-45 per cent and those to the dollar area by 60-65 per cent [10].

	1966-1970	1971-1975	1976-1980 planned
National income	39.1	35.6	30-32
Domestic use of national income	44.0	32.0	20.0
Investments	50.0	50.0	25.0ª
Employment in material-sectors	8.0	0.0	-0.5
Per capita real income	35.1	25.8	20.0
Elasticities with respect to the increment of national income			
exports	4.3	1.6	1.8
imports	1.6	1.5	1.2

Factual five-year growth rates and the targets of the fifth five-year plan, at comparable prices, per cent

<sup>a</sup>In the growth rate of fixed capital actually operating, that is, in the expansion of capacities, there is by far not such difference between the fourth and the fifth five-year periods as in the growth of investments.

in adapting to external conditions). On the other hand, the development concentrating on areas with high and growing capital intensity and the (planned) qualitative change in proportions of economic growth and the dynamics of investment assumed a sudden improvement of efficiency in all fields of assets management.\* We relied not only in strategic decisions, but also in several fields of operative management on stricter central control, mainly, however, on such reserves of efficiency which can be mobilized exclusively with an enterprising management, and in balanced situations. Nevertheless, the necessary improvement in efficiency (or the lack of resources) was partly balanced "on paper" by an expected 10 per cent improvement in the terms of trade with capitalist countries, and also by the irreally low planned figures for enterprise-initiated investments.

The *reserves* which were reckoned with in assuming a quick improvement in efficiency are, as a matter of fact, the characteristic deficiencies of our management – more of less quantifiable through comparison with other countries on similar level of development. (They are: high inventories, "unemployment within the gates",\*\* low organization, bad preparation of decisions of great portent, "leakage" of national income

\*"An adequate growth rate of industrial output can be attained only if the actual exploitation of assets improves between 1976–80 to an extent essentially counterbalancing the factors working towards increasing capital intensity. The growing technological equipment of labour can play only a smaller role in the increase of productivity than between 1971-75 and thus the role of those factors becomes important which serve together a more effective utilization of both assets and labour." (The author means here the growing role of organization and rationalization.) Akos *Balassa* [12].

\*\*The popular nick-name for underutilization of labour.

because of waste of energy and materials which may be also traced back to the fact that quality is pushed into the background etc.) But only such factors may be qualified as reserves promoting evolution which can be mobilized in the actual equilibrium position, with the control means at hand, given the degree of determination. A rational release of enterprise resources utilized with low efficiency (entailing lasting results and not causing waste of other resources in other fields of the economy, nor disorganization of production relationships) can be attained only in a relatively balanced situation and with instruments putting the enterprises "under pressure" (rational prices, profit motive etc.). Without such background the central pressure (aimed e.g. at reducing inventories, at import-saving) will suddenly increase the gap between demands and possibilities, stimulate for building up reserves that can be "saved" later etc., render difficult to increase export capacities and may produce smaller or greater economic disturbances.

The balancing of the efforts included in the plan, difficult to reconcile, relied beyond the optimistic planning of improvement in efficiency - on the assumption that the restructuring of the economy (in concrete terms: slowing down the dynamics of domestic consumption and investment and conversion of a part of the thus released commodities and capacities to western exports, the enforcing of impulses prompting adaptation to external conditions) could take place so gradually as not to cause a break in the rate of growth, nor a shock in enterprise management because of changed conditions. Accordingly, both planning and control tried to set up a "system of equations" for cautious progress and to harmonize them as far as was possible. The pitfalls of such a solution then become perceivable in the course of implementation. If we insist on stabilization of the enterprises' income positions, then, in an unbalanced situation and with tense targets the smaller shifts, imbalances or an initial acceleration of the dynamics of investments can be less and less warded off with the usual instruments: by raising consumption at a slower rate or through an increase in external resources drawn in. Therefore, one has to cling more rigidly to the annual and detailed fulfilment of plan-prescriptions relating to equilibrium (or those contained in the computation documents), or at least to approximating them as far as possible, which in itself strengthens the inclination of control agencies for operative intervention. Under such conditions, the central decision-maker decides less and less on questions of regrouping resources and control, it more and more follows a forced path, it "drifts away".

#### Establishment of the system of "detailing" the regulators

Similarly to planning, also in control many aims that were difficult to reconcile had to be brought simultaneously to a "common denominator": a more direct and stronger role of central control in the interest of a concentrated use of scarce resources; the indispensable adaptivity of firms and their motivation; stability and gradualness. If between 1973–1975 it was felt unbearable to introduce the world market impulses into economic processes, because enterprises would have run into losses in a wide scope, it

should be rather obvious that a consistent enforcement of the same effects concentrated at a certain date can be undertaken with even greater difficulty. It had to be thus attempted to "draw apart" these effects in some way. Thus, in the short run, from among the diversified requirements external equilibrium and mainly enterprise stability (easing the tensions entailed by the new price and cost conditions, mitigation of the effects raising the price level) came to the fore. The modifications finally introduced meant an unambiguous backward step not only against the concept formulated in 1972 – after a critical analysis of the control system then in force - about the further development of the economic control, but also relative to the practice of economic control in the first half of the seventies. These backward steps were not expressing central intentions. Nearing the date when the modifications of regulators had to be introduced, feeling the real weight of problems (and getting somewhat frightened) a series of minor or major compromises were made, but working always in the same direction, in order to "bring to a common denominator" the objectives that were difficult to reconcile. The most important ones were made in the last phase of the work, when the scope and extent of exceptions and deviations were determined - that is, in the discussions among the control organs about the allocation of resources.

The final result was that, although the changes did not *formally* deviate too much from the original and progressive ideas coinciding with the main line of the reform – which concentrated on adaptation to the external market conditions – but the mode of implementation and, consequently, also *its contents*, – essentially differed. True to the original ideas and radically reducing the import subsidies, raw material prices were adjusted to the real costs. The rates of exchange were modified, the wage tax, making labour expensive, was essentially cut, import subsidies were drastically reduced, and the division of enterprise profits according to centrally prescribed rations was replaced by influencing the use of profit through taxation; in the allocation of central subsidies for investments a growing role was given to tenders etc. Considering these changes *it seems* as if in their entirety they had increased the autonomy of the firms, promoting the fast development of adaptive, enterprising ones.

However, the conditions of enterprise management were not shaped basically by the listed changes in prices and general regulators, but by the differentiated instruments applied in a much wider scope than previously, frequently relying on individual weighings: production taxes, profit tax rebates, subsidies and advantages, allocation of development resources, classification into a more advantageous type of wage control.

The main shifts away from the preliminary ideas regarding the modification of regulators can be seen from the following:

1. The original objective was to strengthen the reaction of regulators on the plan. Finally the control became much more strongly subordinated to the "hardening" partial plan targets than earlier. This was felt above all in the allocation of development resources, but became characteristic also in wage control and in enforcing the annual export plans. It is a new phenomenon that in the allocation of investment resources indirect methods are given a growing role beside open central allocations. In defining the

scope of production taxes and tax rebates the requirement of adjusting the enterprises' development resources to the approved central and sectoral objectives, to the "development needs", obtained great emphasis. (E.g. in the food and the building materials industries, but not infrequently in the case of individual firms too.)

2. In regulating development it was intended to reconcile a further strengthening of central decisions and influencing with efficiency viewpoints and enterprise interests. As a matter of fact, with major investment projects the state should enforce the normative rate of return not against the enterprises but against itself when the objectives are selected. But this can hardly succeed. With investment subsidies the situation is similar: real tenders are put in only in respect of about one quarter of the distributable resources, (although originally it was intended to apply this form to one half of the resources). And when the extent of the development support is determined, it frequently serves only to complement the missing enterprise funds (or credit-worthiness).

3. The original purpose of the modifications was to force adaptation to the changed conditions, to radically rearrange relative profits in order that profit should serve as a true qualification of firms (based on the value judgements of the internal and external markets). Instead, the average 30 per cent reduction of profit ensueing under the effect of the price revision became in the course of preparatory work almost an obligatory norm to be enforced in every firm. In levelling the profits the production taxes, \* changing in function, played a decisive role. Initially, this form of taxation was indeed an exceptionally used tool for centralizing rent-like incomes. In 1976 the volume of production taxes almost doubled and they became an instrument for differential taxation, for regulating the difference between costs and the incomes "intended to be left with the firm". The targets for the production tax were first broken down by sectors, and by the latter to enterprises. Also the extensive system of subsidies served to moderate the differentiation of profits. Thus, in spite of a radical reduction of import subsidies, the total of subsidies could not be substantially reduced and even the minimal reduction proved to be transitory. (The ratio of subsidies and exemptions to national income was 30.8 per cent in 1971, 40.1 per cent in 1974, then it fell to 37.9 per cent in 1976, only to attain 40 per cent again in 1977.)

In the individual determination of production taxes and subsidies it became a decisive argument whether the fall in profits was smaller or greater then the magic 30 per cent. This, instead of the intended rearrangement, entailed the reproduction of earlier profitability relations.

A weakening of the normative nature of the control system is brought about also by the partial or total exemptions from profit tax, production tax or the payment of depreciation allowance, as well as by conditions imposed which differ from the general ones. Their role also increased in 1976.

\*These are levied mostly in percentage of price receipts on sectors, subsectors, not infrequently on individual firms.

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4. The four types of wage control\* (and their several sub-types and individual rules) produced a chaotic situation, in which the possibility of wage increases depended only formally on the so-called performances – and the enterprises perceived it. Classification by type of wage control and the stating of deviating wage control parameters was determined, in the final analysis, through bargaining.

# The system of "detailing" the regulators has proved to be permanent

The problems and dangers of regulation becoming an individual one were perceived by the responsible officials of the central control agencies – even if not their true importance. But they assumed that the differentiated tools would function only as a "sluice system" helping transition to the more difficult situation, and would not become habitual practice. At that time it was frequently emphasized – as an answer to the often voiced and not quite unfounded anxieties of the firms – that by continually changing the differentiated instruments the control organs would not tax away the additional results attained, nor would they ease the tensions emerging in the course of management. It was assumed that in the case of levelled "starting positions" the determination and resolution of the central control agencies would be guarantee of asserting deviating conditions in the later decisions.

The last four years have proved that the assumed separation of the initial conditions form the functional mechanism of the control system - and thus a gradual elimination of the differentiated, frequently individual regulations - was an untenable hypothesis. The differentiated instruments are, namely, unavoidably compared to some "base", to an "addressed" income target - and in lack of an objective base they cannot adjust to anything else. And the development of the targets is necessarily the result of harmonization of individual interests, that is, of a series of bargains struck partly on higher level and partly along vertical lines, between the control organs and the enterprises. This bears the imprint of firmly established relations having the nature of plain-bargain between control organs and firms: individual continual corrections following minor or major changes in economic conditions, efforts at separating causes into those depending and not depending on enterprises and at verifying the existence of such, the withholding of performance and strengthening of the quantitity approach. The emerging situation carried in itself the necessity of later corrections - in both directions - also because with the highly differentiated system of taxation and supports it is practically impossible to refrain from a continual adjustment of the individual instruments. Thus, earlier deviation of macro-level efficiency from enterprise profitability should now develop into confronta-

\*Relative wage-bill control (related to the increase in value added), relative wage-level control (related to the per capita sum of profit and wages), and central wage-bill and wage-level controls (where it is centrally stated by what percentage the wage-bill or the wage-level may rise).

tion, demanding continual intervention and individual weighing on part of the control organs. Various disturbances of management that can be overcome only with the help of the control organs are working in the same direction.

On the basis of operative interference and continual correction of the regulators direct, no longer financial, relationships between enterprises and control agencies become the rule instead of exception. The basis for these is provided mainly by the mechanism of enterprise planning and of working out development as well as technological-economic concepts (but also such old "acquaintances" contribute as transitory difficulties related to material supply, the quality of consumer goods, the calling to account because of the volume of exports, further also lasting difficulties emerging in cooperations.) On the occasion of *medium-term* planning by enterprises it occurred that the ministries broke down the sectoral targets into subsectors and enterprises. Following that it becomes a practice that *annual* plans are broken down to or collated with enterprises and "expectations" are formulated by the ministries. Following the officially prescribed form the enterprises work out the plans usually comprising thousands of data for ministries, i.e. as instruments for bargaining for resources. In this "plan-debate" also other regional and social bodies participate more and more. Dependence extends also to seemingly quite independent enterprise decisions.\*

E.g. whether a firm raises its prices or not is much determined by the effect of such decision on the chances of obtaining central development resources, whether it can be proved that domestic production is essentially cheaper than imports, whether a rise in prices provokes aversion of social organs or the control agencies.

All that secures an institutional framework and a scope of movement (and, of course, a base of reference) for direct control, already emerging earlier, — though up to now mostly only informally asserted. Once this has started, then, in consequence of the given decision mechanism and interest relations, ever newer causes of correction emerge and these assume the form of continual "regulator-bargaining". This process is not alien even to the major firms which thus obtain the resources and security necessary for development. One of the decisive targets of enterprise efforts is to be included in the sphere which is "paid attention" to by some control agency. This attention is one of the highest guaranties that it will obtain the resources necessary for further development, that its profitability problems will be solved in the meantime and that it will be protected from the unforeseeable market impulses through the initiative of the proper control body.

The situation is finally characterized in Hungary by the fact that, though careful attention is paid to keeping the rules of the game of the decentralized control system, in

\*"Enterprise investment decisions are under several external influences. One of the most important of these is the influence of the sectoral – or supervising – ministries. This affects almost every enterprise. It also extends to the autonomous decisions, at least in the course of the survey of medium-term enterprise plans, furthermore, when the performance of enterprise executives is evaluated, because here the judgement on the development policy of the enterprise is a very important consideration. Sectoral ministries are to give opinion on every application for credit. They are also members to the commissions for subsidizing, which means that without them and against their opinion it is not possible to extend state subsidy to investments." Andrea Dedk [13]

reality a cumbersome system, translated into the language of the profitability indicators and implemented with indirect instruments, is functioning to break down the tasks and allocate resources — but without the unambiguous decision hierarchy of the system of plan-instructions and with an expanded cast. These changes practically legalize, authenticate and institutionalize the processes started in the decision system in the early seventies (even if not declared).

The lengthy examples perhaps prove that we have to do with an unambiguous process of "backward rearrangement" and not with a quick and resolute system of interference produced by the forced situation that would automatically liquidate itself with an improving situation. The intention of pushing to the fore enterprise stability (mainly of large firms), of a planning firmly controlling the partial processes, of a control activity that would preferably not sharpen conflicts coincided with the interests of those who advocated the strengthening of a hierarchical system in allocating resources, in collecting the claims and in breaking down the tasks. From this it follows, on the one hand, that as long as the individual instruments remain determinant, every participant in preparing and making decisions has to conform (and it is in his interest to conform) with the rules of the game, with the role objectively given in the institutionalized "regulatorbargaining" - independently of his intentions, approach and conviction. On the other hand, precisely as a consequence of the above, it would be a hopeless undertaking to look for ways and means to move away from the established situation by slowly and gradually eliminating the individual features of the system of control and decisions, thus avoiding the transitory jolts of development. Experience indicates rather unambiguously that the vicious circle can be broken only by a radical rearrangement of the established spheres of decision authority, by a considerable modification of the institutional system of the economy (of economic control) - even if this involves jolts, conflicts, sharpening contradictions and undeniable losses. There is not other choice left.

The annual plan for 1980, the decisions related to economic control – which now really suppress the possibility of bargaining for preferences – promise a more resolute attack on uneconomic activities (even in the case of priority enterprise positions). Also the problems of enterprise organization now put on the agenda in the context of developing economic control, as well as the intention to enforce (even at the price of conflicts) world market price effects, allow to conclude that the recognition of necessary radical modifications is maturing in Hungary, even if it has not yet forced a breakthrough.

#### References

- 1. HUSZÁR, I.: Reflections on the 1979 national economic plan. Acta Oeconomica, Vol. 22, Nos 1-2 (1979)
- 2. CSAPÓ, L.: Gazdaságpolitika, mechanizmus, szabályozás, és kölcsönös összefüggéseik (Economic policy, mechanism, control and their mutual interrelations.) Társadalmi Szemle, 1966. No. 2
- 3. BRUS, W.: The market in a socialist economy. London, 1972. Routledge and Kegan Paul.

- 4. NAGY, T.: A gazdasági mechanizmus reformja és a politikai gazdaságtan kategóriái (Reform of the economic mechanism and the categories of political economy.) Budapest, 1966. Tudományos Ismeretterjesztő Társulat.
- 5. FERGE, ZS.: A szocialista társadalmi struktúra dinamizmusáról (On the dynamism of the socialist structure of society.) Valóság, No. 11, 1976.
- RÉVÉSZ, G.: Enterprise and plant size. Structure of the Hungarian industry. Acta Oeconomica, Vol. 22, Nos 1-2 (1979)
- 7. FRISS, I.: Ten years of economic reform in Hungary. Acta Oeconomica, Vol. 20, Nos 1-2 (1978)
- 8. NYERS, R.-TARDOS, M.: What economic policy should we adopt? Acta Oeconomica, Vol. 22 Nos 1-2 (1979)
- 9. LAKY, T.: Enterprises in bargaining position. Acta Oeconomica, Vol. 22, Nos 3-4 (1979)
- 10. HETÉNYI, I. Growth and equilibrium in the fifth five-year plan of Hungary for the years 1976-1980. Acta Oeconomica. Vol. 16, No. 1 (1976)
- 11. TAR, J.: Beruházások és gazdasági növekedés (Investments and economic growth.) Gazdaság, No. 3, 1976
- 12. BALASSA, Á.: Az ipar fejlesztésének fő kérdései (Main problems of industrial development.) Gazdaság, No. 1 1976.
- 13. DEÁK, A.: Enterprise investment decisions and economic efficiency in Hungary. Acta Oeconomica, Vol. 20, Nos 1-2 (1978)

#### РАЗВИТИЕ — С ЗАМИНКАМИ ВЕНГЕРСКИЙ ХОЗЯЙСТВЕННЫЙ МЕХАНИЗМ В 70-Х ГОДАХ Л. АНТАЛ

Развертывание реформы хозяйственного механизма в Венгрии, начавшееся в 1968 г., продолжалось лишь несколько лет, хотя как внешние, так и внутренние условия благоприятствовали этому процессу. В начале 70-х годов развертывание реформы застопорилось, а затем последовал процесс ее попятного развития. Сущность этого — формально сохранение неизменными особенностей децентрализованного механизма, самостоятельности предприятий, замены плановых директив заинтересованностью в прибыли, гибкой системой цен. Однако на заднем плане все большую роль приобретали министерства, территориальные и общественные органы, а также непосредственные контакты предприятий с руководящими органами и с другими предприятиями, «торги» между руководящими органами и предприятиями и «уговоры» вместо открытых директив. Растущий разрыв между формальной заинтересованностью в прибыли и все более эффективно функционирующими на заднем плане скрытыми (натуральными) плановыми директивами преодолевался с помощью все более сложного, все более конкретного (касающегося данного предприятия) финансового вмешательства. В конечном итоге этого процесса к 1975—1976 гг. сложился механизм разбивки и доведения до предприятий регуляторов, действующий в основном в ценовых и финансовых категориях (однако не чуждающийся и административных мер), который при этом сохтанил форму, технику децентрализованного управления экономикой.

Основная причина возврата к разбивке регуляторов состояла в том, что после введения реформы остались неизменными институты управления и сохранились искусственно укрупненные гигантские предприятия. Тем самым сохранились и те интересы, которые обеспечивают распределение и перераспределение ресурсов посредством субординации в иерархическом отношении. По мнению автора, предолеть имеющее место в настоящий момент трудности, то есть восстановить внешнеэкономическое равновесие венгерской экономики путем усиления конкурентоспособности ее экспорта, а не отгораживания от мировой экономики, можно лишь при глубоком изменении хозяйственного механизма, при последовательном следовании по пути начатому в 1968 г.



Acta Oeconomica, Vol. 23 (3-4), pp. 275-284 (1979)

# I. BELYÁCZ

# PROBLEMS OF THE REGULATING ROLE OF INTEREST IN HUNGARY

Parallel with the activation of market and monetary relations, categories so far only of a formal importance, began to be seen in a new light in socialist countries: such is, for example, interest. The control of the economy using also indirect regulators in Hungary intended to give this important economic instrument a significant role in the complex system of economic processes and means at the start of the 1968 reform. Development of an active role of interest was made necessary by the following factors: an active use of credits for financing decentralized development decisions; development of a combined system of development resources; appearance of the decentralized investment decision sphere; distribution of investment goods through the market mechanism.

According to ten years' experience, however, the regulating role of interest is asserted only with limitations. What is the cause behind the fact that interest does not stimulate or orientate, nor does it evoke the reaction of enterprises?

The author finds the answer in the relationship between the enterprise and its economic environment.

#### A few problems of the picture conceived about interest

In economics and economic practice there are a few such categories on whose place, exact role, and real effects we have no reliable knowledge as yet, and among them is interest. In the role of interest a striking difference is found between the capitalist and the socialist economies. In a capitalist economy interest is a category of central importance. As regards the concept and role of interest, a highly varied picture emerges. If exclusively consumers' loans and the attached usurious rate of interest are left out of account, interest is the product of the separation of money capital from industrial capital; an organic category of the capital market comprising the demand for and supply of capital. Interest is a part of the new value; as for its rate, changes in its level, and the nature of effects caused by it, the bourgeois theory of capital has tried to provide several explanations: — development of interest was affected by the prevailing demand and supply on the capital market, in a way that these factors were themselves dependent on the rate of interest:

- it had an influence on the rate of interest against what the owner of capital temporarily resigned his capital, i.e. what requirement he raised on the use of the given capital;

- with a view to capital formation (and its acceleration) the consumption of goods had to be renounced in the short run, and an adequate level of interest stimulated for

sacrificing consumption, so that, as a result of capital formation, there should be even more consumable goods;

- scarcity of goods necessitates an ordering of satisfiable demands, for which purpose interest was found suitable; this order served as basis for distributing the scarce supply of capital goods available for society;

- in bourgeois economics which broke away from the labour theory of value interest was considered as an independent income of capital, as the expected marginal proceeds of capital inputs: it was identified with the net productivity of capital which is merely expectation prior to the input, yet such expectation played an important role in developing the rate of interest.

In a capitalist economy interest has always played an important role in regulating the capital market and investment activity. It is worth observing that interest exerted its stimulating or braking effects not independently, as if torn out of the system of economic instruments: its role should not be idealized. What is essential is only that, as an economic instrument, it has a decisive importance in regulating certain processes.

In a socialist economy we must automatically expect a certain constraint on the assertion and sphere of action of interest. Lack of a free flow of investment means does not allow the direct encounter of demand for with supply of capital. From the mutual relationship of the two sides the rate of interest cannot grow out. Development of the demand for and supply of credit does not depend on the valid rate of interest, nor does the latter react on the development of the two sides, either. The creditor is not influenced by the interest margin in distributing the means. Even if this inherent constraint is known, we can still consider as narrow the domain of interpretation in which interest is considered solely as a means for regulating the credit mechanism. The causes for its constrained role in the functioning of the credit system may also more easily be revealed, if the category of interest is considered in its complexity. It is first of all investigation of the actual form of existence of interest that convinces us of the fact that its sphere of effect goes beyond the credit mechanism.

# Definition of the function of interest

There is a characteristic contradiction in the Hungarian economy: we have always attributed great importance to improving profitability and efficiency, yet the fact has been neglected that requirements are formulated with the aid of the function of interest. Although quantitative in its direct form of appearance, and its prevailing rate is a not negligible point, interest is to be considered mainly as a qualitative category. It is the qualitative aspect of one of the fundamental media of economy: time. Time plays a double role in economy. On the one side, the time horizon provides a quantitative framework for decisions on production and market, as well as for economic policy, control and management. On the other side, progress of time, decisions situated at various points of the time horizon, the use of money, and different ways of investing the means
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always raise an extremely important requirement; that the ways of using means, and the fields of management must be selected and the decisions on production and market must be made and realized in such a way that the principle of economical use of means should always be asserted. In accordance with the function of interest, the progress of time must in all cases bring additional income as a result of the means engaged and utilized. In the Hungarian investment practice profitability and efficiency expectations are rarely attached to the fulfilment of the interest requirement. It is almost exclusively with the utilization of loans that the interest requirement is mentioned. The so-called D indicator prescribed for the efficiency examination of the large productive investment projects, which formulates the requirement of additional income in terms of a 12 per cent interest rate may be considered as a positive exception. In the first approach it seems in fact that satisfaction of the interest requirement is not an exclusive form of manifestation of profitability and efficiency. If we confine our examination to the investment process, we shall meet with the following expectations: the investment project should be completed within the shortest possible time; the new capacities created should remain up-to-date also after they have been put into operation; competitive products should be produced with the new capacities; investment costs should not exceed the estimates, etc.

The list could be continued, but the point is that in these requirements profitability and efficiency are approached from different sides and just as profit synthetises all the important phases of enterprise activity, so does interest all the important phases of the investment process . . . Interest is practically a concise expression of profitability and efficiency; therefore, fulfilment of the interest requirement is at the same time fulfilment of the profitability and efficiency requirements.

If we subject the actual forms of existence of interest to a close examination, we shall find that the additional income requirement may be formulated in various ways.

- interest is a continuous requirement in connexion with engaged and utilized means in the course of current management;

- interest manifests itself in the requirement made on the expected efficiency of investment: this requirement will be either realized or refuted by the results of the investment put into operation;

- interest must play a role - particularly in a "combined" system of investment resources - in the distribution of financial resources and in setting up the efficiency requirements regulating allocation; if several economic actors (state, bank, enterprise, cooperative, council, etc.) dispose of development resources, such requirements may widely differ;

- as a regulating instrument, interest must have a role in influencing the demand for and supply of the financial means of investment, which basically points beyond the relationship between the sizes of credit demand and supply;

- as a computation factor, interest is an integral part of the dynamical profitability computations (manifesting itself in the form of calculative or internal rate of interest);

- one of the forms of manifestation of interest is the charge on fixed assets which still presents, though to a changed extent, the requirement of minimum proceeds

expected from fixed assets and, combined with the taxes on wages, it may have a role also in the combination of the production factors.

If the interest requirements formulated in various forms are fulfilled and the additional income envisaged for the investment is realized, the engagement and utilization of means have been in fact successful. Interest is produced as a part of the overall social new value, and its source is value-creating labour. The diversified formulation of the interest requirement makes it also clear that what is involved is not only a charge for using borrowed assets, since it has to be assigned to every fixed and utilized means. Consequently, in the utilization of own means the raising of a requirement in the form of interest is just as indispensable as it is in the utilization of borrowed ones. All the same, the expectations formulated in regard of utilization of means are but theoretical possibilities. Let us see, how the function of interest approached from several aspects is realized in the Hungarian practice.

# Disturbances in the fulfilment of the function of interest

If we take in turn all forms of existence of interest, it can be demonstrated for each one that there are (or were) troubles in the assertion of the regulating role of interest.

The most important elements are the following:

- the deficiency of the charge on fixed assets became manifest in the fact that the principle of minimum returns did not act as a primary incentive in the utilization of fixed assets; it could not withhold companies either from an exaggerated use of fixed assets, or from getting rid of the fixed assets not bringing the minimum additional returns; the charge on fixed assets is not a determinant regulator in the selection of production factors, either, the cause of which is, however, not solely the limited assertion of the interest function;

- in enterprise behaviour, in engaging and utilizing the given stock of assets it is not felt that continuous requirements are raised towards either current management, or in stating the expectable efficiency of investment;

- the intensive interest in the starting of investments, the swelling stock of incomplete projects with each enterprise and long gestation periods indicate that material resources engaged in a passive state have become standard drawbacks in management: the enterprise is not sensitive to assets engaged but not bringing additional income;

- in the allocation of the financial resources of investments the interest requirement could have played an orientating role through differentiation, but, because of the great investment hunger, demand was high even for the most expensive resource, and even the demand for financial means was insensitive to interest;

- the limited spreading of dynamical profitability computations and their restricted role in decision-making also points to disturbances in the fulfilment of the function of interest.

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The picture would be one-sided if we did not examine the efforts aimed expressly at activating the role of interest in Hungary. We must turn attention to two fields in particular: differentiation of the interest on credit and the trend towards levelling the efficiency of components of the investment resource system.

In the investment bank credit an important role has been assigned to the differentiation of interest. A variety of investment objectives supported by credits, differences in terms, and the assertion of preferences brought into being a differentiated system of interest requirements. Failure to comply with certain conditions attracted punitive interest rates. Yet this rather wide system of requirements failed to provoke different reactions on the part of enterprises: reaction was almost the same on the highest and on the lowest requirement – interest did not stimulate, it did not constrain: there was clearly an insensitiveness to interest. (It is interesting that a certain sensitiveness to the punitive rates of interest is found.)

As an interesting contradiction to the differentiating intention of interest on credit, in the whole of the investment resource system it was the intention to level out the efficiency requirements that was formulated as a primary aim. In the years following the reform considerable differences existed among investment amounts coming from various sources. While with investment bank credits very high demands were made on the investor, the resources coming from the budget practically did not entail any requirements at all. As regards the efficiency requirement, own investment resources have always taken a special place: though in principle the extent of normative requirements cannot be neglected, these are not taken very seriously in enterprise investment practice. In respect of the efficiency requirements exaggerated differences were characteristic of the investment resource system. From this also such an important consequence followed that demand was very great for the "cheap" money to which no efficiency requirement was linked, and this basically weakened the anyway not very strong efficiency requirement. In recent years the levelling of efficiency requirements has attained noticeable results. Investment bank credits, with their high efficiency requirements, play an important role also in the entire domain of productive enterprise investments; the weight of state loans from the budget, entailing an efficiency requirement, has definitely grown; the weight of free investment grants from the budget has largely diminished in the scope of productive investments, and as for its tendency, it will be but a rare exception. The new forms of investment are either connected with a numerically defined interest requirement (to pay a rent obligation), or with the prescription of completion on time so as to improve efficiency ("countervalue" of indirect support). The steps made toward satisfaction of the efficiency requirements try to render the entire resource utilization more efficient, even at the price of sacrificing the advantages of differentiation. In the period when the efficiency requirements of the investment resources were differentiated no considerable difference was found among demands for "cheap" and "expensive" investment money: demands were great for all kinds of resources. The most authentic explanation for the fact is the widespread unresponsiveness to interest, and the slight compelling force of the efficiency requirements.

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Thus the fulfilment of the function of interest is hindered by the predominance of negative factors, and, summarizing the functional troubles, the conclusion can be drawn that at present enterprise economy in Hungary is largely unresponsive to interest in making decisions on production, markets and development. The greatest difficulty in the limited assertion of the regulating role of interest is not caused, in fact, by periodical or regular failures of producing additional income, but by the lack of requirements. Unresponsiveness to interest represents an insensitiveness to or the underrating of the economic role of the time factor. Interest is, namely, a form of expression of the economic role of time, i.e. of the fact that the passing of time brings income in case of an efficient management and that, with further investment, it comprises the possibility of producing further incomes. On account of the economic role of time, the enterprise does not apply the same measure to the importance of the same money (income, input) at different dates. Interest is suited to express as well, by how much we consider a unit of income more valuable today - on account of the time preference - than tomorrow. The question might be justly raised: what accounts for the restricted regulating role of interest, and for the unresponsiveness to the economic effects of interest and time?

# The causes of unresponsiveness to interest

After the 1968 reform in Hungary it soon turned out that in spite of expectations, interest could not exert a genuine regulating effect in enterprise management. (It may be added that in practice the necessity of the regulating of interest is not yet acknowledged even today.) For the lack of a regulating effect the explanation has widely spread that the source of the trouble was the unresponsiveness of enterprises to costs and the lack of knowledge of real inputs.

In some respects this explanation is undoubtedly correct. In the Hungarian system of cost accounting interest is a special cost factor since, as for its origin, it is a part of the new social value i.e. of the net income, while for the enterprises it is a cost factor of input character, reducing profit. It follows from the functioning of the Hungarian income regulating system that additional income assuming the form of interest has to be produced by every economic action, and the state taxes it away from the enterprise. It arises from the special position of interest - though it is only one among the many cost factors for the enterprise - that the function has to be asserted which distinguishes it from other inputs: so much (considering the total income: so much more) has to be produced by the total of invested means. The non-fulfilment of this function can certainly be related to cost unresponsiveness. If the enterprise does not make any distinction between interest and other inputs, it can set but one aim: interest should "fit into" the price and should be realized similarly to other inputs. If the enterprise does not feel the real situation in regard of the various types of inputs, it will grow insensitive to the actual development of costs, and the same will happen to interest. For the Hungarian enterprises, mostly in a sellers' market position, it is not difficult to produce interest as an

expected additional income, the question is only whether the price can bear this additional cost and if it can be smoothly shifted onto the customer.

In most cases this shifting has, unfortunately, no obstacle at all: in raising the loan (bank credit) interest will figure as a fixed component of investment costs; it does not act as an efficiency minimum, but it adds so much more to investment costs.

The Hungarian system of cost accounting offers, anyway, good grounds for the development of cost unresponsiveness. In regard of the various production factors the principle of input proportionality does not fully assert itself in price formation. Rather a special view is prevailing in which centralized incomes of the state budget are preferred. The disadvantageous consequence of this can be observed in two respects; the enterprise is insensitive to the current real inputs, and, because of the distortion, it cannot react adequately on the income requirement, either. We cannot say that the systems of income regulation do not link some efficiency requirement to each production factor and economic action. We may rather say – reviewing the components of net income – that too many requirements are made. That they fail to be effective may be explained partly by the fact that the real inputs and incomes cannot be seen clearly, and partly that a too high requirement does not act stimulatively just as a too low efficiency criterion does not, either.

The realization of interest in the form of cost, and its smooth shifting onto the customers represent by all means real grounds for the unresponsiveness to interest. though the explanation is not at all complete: unresponsiveness to real inputs and to real success is a part of a larger system of relations. The slight compelling force of the efficiency requirements embodied in interest arises from the limited compelling and stimulating force of the environmental effects which befall the enterprise. Hungarian enterprises live in an environment basically "prepared" and "idealized" for them, under much more favourable conditions than does the Hungarian national economy exposed to the "storms" of world economy.\* The deeperlying cause of unresponsiveness to interest may be found in this unresponsiveness to the environment and, when we have come that far, it will become also clear that interest is not primarily a percentual value and not merely an additional income expected from the assets but much more than that. Interest is the function of a kind of approach or way of thinking; it represents the requirement of an efficient investment and operation of resources, and the most important demand for an economical utilization of assets. Such enterprise attitude has not yet gained ground in Hungary and, as long as regulation does not mediate the real environment but some idealized forms of it to the enterprises, obstacles will remain. If we look at the substance of interest, i.e. interpret it as the concomitant of an approach or way of thinking, it will be seen doubtlessly that what is involved is not a peripheral but a central category also of the whole of management.

\*This statement is made in regard of the price- and control system valid before 1980. (Editor's note.)

It is by far not an intention of the present examination to place the category of interest into the centre of management, leaving it out of consideration whether it can be deduced or explained from the objective conditions of management. This would be practically a subjective approach: it would be to say that we "decide" on the utilization of interest without any careful examination of the requirements of its assertion.

It is only one aspect of the problem that the present interpretation of interest is an organic part of the Hungarian indirect control system, and that the economic content expressed in interest is in harmony with both the principle of profit incentive and enterprise autonomy based upon independent initiative. The other aspect is unresponsiveness to interest, which is rooted in the unresponsiveness of management to the environment. That no active role of interest has developed can be traced back to the relation between the enterprise and its environment. It is not the role of additional profit (interest), i.e. of additional income from an additional economic action, but that of profit itself in Hungary that highlights the deficiencies of this relationship.\* As a result of the fact that enterprise management had not to face a real environment but its manipulated version, the indicator intended to measure the results of enterprise operations - i.e. profit - could not practically fulfil its main function. In the profit indeed all external and internal effects became synthetized, but the relative weights of the effects changed in favour of components independent of real results. The fact that profit is influenced to the extent of 75 per cent by factors independent of efficiency renders it unsuited to measure either actual profitability differences, or the results of autonomous enterprise functioning. Deficiencies in the regulating role of profit point also to the functional troubles of the incentive and constraining control system. No effective compelling forces weigh upon the enterprise: the earning of a given size of profit requires no serious fight, regulators "do not allow" a fall in profit, whether the quality of management is outstanding or very poor. In this respect there is a strange contradiction in control: it expects the profit and income tendencies to provide information about activities leading to losses (with a view to suppressing them), while it judges it inadmissible and to be avoided that profitability should fall. How could a deterioration in profitability (a natural concomitant of management here and there) indicate the neuralgic spots of management, if it is not allowed to develop at all? When profit as a general incentive loses its authentic role, if the control authority wishes to take steps with a view to any objective, it can do so successfully but with the introduction of partial incentives.

Thus a peculiar parallel development within the functioning of the incentive and restrictive system may be observed. Profit remains – deprived of its original function – upon which orientations cannot rely, while selection of development and production directions takes place in other ways and for the achievement of actual targets partial incentives are introduced. If we want to achieve a more intensive utilization of capacities and a more rational use of labour, or we want cost reduction or energy saving – the list

\*For more on the subject see *I. Fenyővári: The role of profit in the Hungarian economy*. Acta Oeconomica, Vol. 22, Nos 1-2, (1979) pp. 33-46 (Editor's note.)

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could be continued –, enterprises must be "separately" stimulated, since the "fight" for profit is not enough to attain the desired results. Interest (marginal profit) loses its authentic regulating role if such ability is missing from the basic profit itself.

# Interest should be an active regulator!

It stands out clearly from the train of thought followed thus far that the problem is not activation of an isolated regulator at all prices, but the importance of a certain approach and way of thinking. In this approach a much more significant role is to be given to the time factor, to the profit showing results among real conditions, and to the requirement of additional income. Therefore, we have to create the conditions in which such an active role may evolve: — the enterprise should be influenced by real environmental effects, negative impulses should not be neutralized or changed into positive ones by regulators; there should be internal compelling forces that allow the enterprise to remain on the surface but through a continuous adjustment to the real environment;

- in a real environment the approach of control and management which relates everything to the base-year must by all means be changed; with such an approach the concealment of reserves and underutilization of resources are stimulated even in an indirect control system;

- the content of the division of labour between the owner of assets (the state) and their user (the enterprise) in taking responsibility and risk of investments should be classified; the practicability of the almost exclusive risk-taking by society must be challenged;

- the current real results of enterprise management should be always ascertainable, supports and exceptions should not conceal the real state of management;

- the status of liquid assets and of efforts made at liquidity should be raised: the enterprise should by all means weigh up in what it is worth investing money; the cycle of investment and returns should be as fast as possible.

Activation of the interest approach would deeply affect the successful utilization of resources. Hungarian enterprise management is characterized by superfluous accumulation of assets and the swelling of unused capacities. Full utilization of assets would obviously increase output to a large extent. The employment of labour in individual enterprises and in the whole economy is at present irrational. In harmony with the utilization of assets the efficiency of this particular resource could also be improved. The resources invested spend an irrationally long time in the passive state of being locked up. Assertion of the effect of interest in this latter field would entail priceless advantages.

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#### ПРОБЛЕМЫ РЕГУЛИРУЮЩЕЙ РОЛИ БАНКОВСКОГО ПРОЦЕНТА В ВЕНГРИИ И. БЕЙАЦ

После хозяйственной реформы 1968 года вместе с выдвижением на первый план товарноденежных отношений ожидалось развертывание активной роли банковского процента. Этого требовали такие важные факторы, как децентрализация системы принятия инвестиционных решений, повышение роли кредита, существование инвестиционного рынка. Согласно исходному положению статьи, опыт десяти лет показал, что процент не выполняет ожидаемой от него регулирующей, ориентирующей, ограничивающей и стимулирующей роли.

На основе анализа роли процента в хозяйственной практике автор приходит к выводу, что как текущие хозяйственные решения, так и решения по вопросам развития рынка характеризуются большой степенью безразличия к проценту. Основные причины безразличия к проценту автор видит в нечувствительности к расходам в хозяйственной деятельности предприятий и в таком же безразличии среды. Он подчеркивает, что процент — это в первую очередь не численная величина, не просто дополнительный доход, ожидаемый от вложения средств, а гораздо больше этого: процент выражает своего рода подход к хозяйствованию, образ мыслей, потребность в эффективном вложении и использовании средств, требование экономного расходования средств.

Конечный вывод статьи состоит в том, что в плановой и регулируемой экономике объективно существуют условия для функционирования процента. Если предприятия на самом деле должны затрачивать усилия в интересах получения прибыли, а прибыль станет зависеть в основном от экономической эффективности, если будут уяснены отношения по ответственности и риску за капитальные вложения между государством и предприятиями, то тогда может развернуться и активная регулирующая роль процента.

Acta Oeconomica, Vol. 23 (3-4), pp. 285-303 (1979)

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# INTER-FIRM RELATIONS AND TECHNOLOGICAL CHANGE IN EASTERN EUROPE – THE CASE OF THE HUNGARIAN MOTOR INDUSTRY

The present paper is concerned with inter-firm relations, studied from a specific point of view, namely, technological change, its promotion or thwarting. The branch chosen for the purpose was the Hungarian motor industry. The choice was not a deliberate one, it was here that the authors were given the facilities to do research work.\* This branch nevertheless proved to be an ideal field as in the motor industry technological change strongly depends on the quality and type of development of (domestic and international) interfirm relations. It is attempted to illustrate the implications by means of a comparison of development in Western Europe and in the CMEA. The development in Eastern Europe will be presented through the example of Czechoslovakia's motor industry, having the oldest traditions here, and mention will be made of the development of the Romanian motor industry, which is the youngest one.

# Two lines of development

Motor industry is a field of modern manufacturing where highly complex products are turned out calling for the cooperation of manufacturers with various technologies in various sectors. The completed products consist of many parts and components which are sometimes similar and sometimes different in the completed products for different end uses. In the latter case the components for different purposes are often manufactured from different materials and with different equipment and the only common asset is the professional knowledge of workmen and leadership. In the motor industry these circumstances usually impose specialization by enterprises, i.e., division of production into that of finished vehicles, of subassemblies and parts and in particular of ancillaries and fittings. Within these various stages may be observed. Separation of the production of not engineering type of fittings (glass, tyres, seat upholstery, seats) is very common (e.g. the tyre works Michelin, Pirelli, etc.). The production of main components which belong to the engineering industry but are not of the mechanical type (instruments, electrical accessories) is quite often independent (e.g. Bosch, Marelli). In some cases also the production of components and parts typically produced by the motor industry is

\*During 1977 and 1978 the authors participated in a research project by appointment of Ikarus Body and Coachbuilding Works. In the course of the work they were in close cooperation with Mrs. Anna Patkós, Miss Éva Tárnok and Mr. Péter Vince but the findings were formulated separately. detached (e.g. ZF steering gear and transmission works, West Germany; Perkins engine works, Britain). And even in cases when there isn't any such separation, the subassemblies and parts sell potentially on their own. The quality, price and other parameters of the completed vehicle hinge equally upon the quality, price, etc. of their components, these requirements are therefore continually imposed on the production of these component units. Technological development in the motor industry translates into product and production development of each component unit.

In bigger countries which became industrialized early, many automobile producing firms were set up and these together, and the bigger ones also separately, presented a broad offer of the products of the motor industry. They procured the non-engineering type parts and component units from other enterprises but usually from inside the country and the mechanical units were usually manufactured by themselves.

*Czechoslovakia's* motor industry developed along a similar line in the first half of the 20th century. Cars and lorries and their subassemblies were manufactured by half a dozen of major companies in a more or less parallel manner between the wars. At the same time they usually bought imported component units and accessories basically from Germany and Italy.

After World War II the factories became specialized by end products. The manufacturing of cars (Skoda), buses (Karosa), trucks (Tatra) and lorries (LIAZ) separated. The indigenous motor electrical industry and the production of other accessories were developed (PAL) and imports were completely eliminated. A special factory was created for each and these supplied the entire motor industry.

At the same time the automobile factories initially preserved a relatively high degree of verticality: most or all of the mechanical units were manufactured by them in series corresponding to the amount of completed vehicles. The process of specialization in component units evolved in the country only in the sixties when, for example, one of the former car factories (Praga Works) adopted the main line of gearbox production for all the commercial vehicle factories. Also in this case the new specialized enterprise became sole supplier. However, the strive for the maintenance of verticality on the level of the national economy remained typical also in that period. Although the export quota of the output of the motor industry was always remarkable, it typically consisted of completed vehicles, while all the subassemblies and parts of the manufactured vehicles were turned out at home. There was only one exception in exports: an orientation towards completed vehicles: the exports of bus chassis to Poland and then to Bulgaria (the body is built upon the ČSSR chassis in Poland and in Bulgaria). The latter has recently been connected with the export of subassemblies of lorries under long-term cooperation agreements (Bulgarian Madara trucks manufactured with Skoda subassemblies). Bulgarian and Hungarian axles appeared in the seventies as considerable subassembly imports. But till now these phenomena have been still exceptions from the rule.

A similar structural tendency is observable in the development of the *Romanian* automobile industry which was rather a latecomer. True, the typical feature of the Romanian motor industry is not development based on own design but one based on

licences purchased earlier from the Soviet Union and lately mainly from France and West Germany. This was a manifestation of the latecomer type of development. At the same time an ample assortment of products was developed also in Romania: they manufacture various categories of trucks, buses, trolley-buses and cars. The most remarkable under-taking is the production of cars under Renault licence (Dacia); but the series of 55.000–60.000 per year is far below the series regarded internationally as usual for standard cars. It is a still more important point that 80 per cent of the value of the cars is already manufactured indigenously and they plan to increase this share still further. In the new car manufacturing venture carried out with Peugeot–Citroën support (OLTCIT) it is intended to cut down imports of parts to a similar level. On the other side, parts and component units are exported only in little volumes under compensation transactions.

The case is even less advantageous in the production of trucks, buses and trolleybuses turned out in very small lots. Owing to the small series of the completed products and of the subassemblies the costs of these products are inevitably high. However, in the light of Czechoslovak experience, this mode of development has even more dangerous implications from the aspect of technological development.

It is known that in the first half of the century the Czechoslovak motor industry was in the first league of international technical progress. Today the case is different. True, the Czechoslovak motor industry is present in the market with reliable products of good quality. It could achieve remarkable sales of cars and trucks as well as of motorcycles in industrialized Western countries too. (Also the considerable hard-currency exports of tractors, a related product, is worth noting.) However, the relatively low price has a greater role in marketing achievements than the technological standards of the products and in such circumstances this export cannot be regarded as unambiguously efficient.

The rates of technical progress and product replacement are, namely, far from being satisfactory. Fragmentation of the forces of development is very likely to play a role here: the limited R&D capacity of a small country has to tackle the product development of each major type of vehicle ranging from bicycles to cars and from buses to heavy-duty trucks, and is expected to keep maintaining the design of the completed vehicles and all subassemblies and parts on an up-to-date level.

As they should like to develop everything themselves, R&D capacities are fragmented and this is why they cannot keep pace with technological development. Purchasing a licence is rarely considered.

Beside the fragmentation of R&D capacities another consequence of this type of development of the motor industry was isolation of technological development from international technical progress. Only the finished vehicles reach the world market and only these are regularly confronted with the perpetually changing set of market requirements. Isolation of the development of subassemblies and parts affects the opportunities of completed vehicle development as well, because completed vehicles, too, can be manufactured only with the indigenously made component units which are not built elsewhere. The indigenous subassembly can usually be obtained but from a single supplier

and thus the influence the manufacturer of completed vehicle is able to exert is limited to pressure through the common superior organizations.

This common superior organization is the union. It is an important circumstance that the production of e.g. tractors, trolley-buses and power-assisted steering gears, let alone the production of the not-engineering industrial fittings, does not belong to the union. In Czechoslovakia, also metallurgy belongs to a different ministry. This circumstance makes the influencing with the help of higher organs extremely clumsy. It is another consequence that the production of chassis and body for trolley-buses (Škoda Works, Plzeň) is (or was until the very last time) done outside the union, quite independently from bus production, and also the manufacturing of the gearboxes of tractors is done separately.

From inside, the development of the Czechoslovak motor industry seems to be self-explanatory. It becomes questionable when it is compared with the main trends during the last decades of the motor industries of *West European* countries.

Today only big countries have automotive industries supplying a relatively complete assortment. In the small Western countries there is either no motor industry at all or they perform one or two phases in the manufacturing of a product (assembling, body building), or production is limited to special and custom-made vehicles. In both cases a considerable amount of components and aggregates is imported. In the individual countries different structures were developed but the rule is typical that they are greatly specialized. Specialized enterprises developed for manufacturing parts or subassemblies or only for assembling or only for body building (the multinational empires of companies are divided into specialized large factories) where the subassemblies and parts are marketed as independent goods. On the other hand, there is a high degree of supranational and international interveawing, penetrating beside financial and market relations also into technological development. Parallel technological development of the production of parts and component units and of the production of completed vehicles is imposed by the circumstance that everything from seal-rings to self-carrying chassis that can make up a vehicle has become a commodity in itself. Specialization on one side and strong integration between enterprises and countries on the other, provide an opportunity for the concentration of development resources and for the rapid spreading of the new technological achievements. It has to be stressed here that the specialized production of component units never serves the motor industry alone but also other branches (e.g. the production of agricultural machines or household appliances) and the rapid proliferation of new technological achievements is promoted as a "side-effect" also by attempts at diversification by big enterprises aimed at warding off the market fluctuations.

This development is otherwise a good example of the connection between monopolization and competition in modern capitalism. The agreements between big capitalist enterprises which also cover cooperation in development and market division never eliminate competition in all respects. The impact of competition on encouraging technological development is thus preserved and even strengthened inasmuch as the tradi-

tional relations tying the domestic user to the domestic supplier, or, in more general terms, the customary user to the customary supplier are cut or at least become looser.

Separation of the various phases of production can be realized in the frameworks of various enterprise types. Independent production of subassemblies and parts can become the line of specialized big enterprises supplying a wide circle of users and their market is guaranteed by top technological standards and good business reputation. It can, however, also be the production line of competing small and medium enterprises who are, on the other hand, frequently the suppliers, and not the sole ones, to a big company. The first version is characteristic e.g. in the West German automobile industry and the latter in France.

As against the tendencies of West-European development outlined above, Daimler-Benz and especially Fiat embracing with their tongs all suppliers are usually quoted as counter-examples. In an interview granted to a Hungarian paper Mr. Agnelli himself stated that Fiat does not want to run against the tendency shown here:

"As I can see it, automobile production is heading towards further specialization and integration. We will assemble and build cars from first quality component units manufactured at different places. This division of labour will transcend national frontiers".

Mr. Agnelli went on to add:

"I suppose this is the way of development also in the CMEA, conditions there are favourable for such division of labour and specialization anyway". [1]

### Specific features and constraints of development in Hungary

The development program of the Hungarian motor industry, the road vehicle project started in the mid-sixties, set out from the assumed opportunities offered by the division of labour in the framework of the CMEA and by specialization in the country. When the program was drawn up, the Hungarian output was a few thousands of Ikarus buses, medium category Csepel trucks and tractors and Dutra dumpers (the latter were products of the Red Star Tractor Works). For all the three completed vehicle manufacturers, Diesel engines were produced by Csepel Auto Works, axles for truck and bus production by Rába Works Győr and the gearboxes for bus production by the Hafe Transmission and Elevator Works. Electrical components and accessories were produced by a number of smaller enterprises.

The road vehicle program provided for a powerful development of the production of large category buses (Ikarus) and of rear axles (Rába) as well as for the development of engine and power-assisted steering gear production. Waiving standard car production was one of the most frequently lauded decisions of the Hungarian economic policy, showing the recognition that it was impossible to establish a full-scale motor industry economically in the second half of the 20th century in a small country. The other side of this recognition, namely, that a small country cannot even realize the full verticality of bus

production economically, was shown simultaneously by waiving the production of front axles. At the same time, the concept of rear axles and power-assisted steering gear exports expressed the reverse: even though the Hungarian engineering industry cannot "take" a volume of truck production similar to that of bus production, that is, one representing the internationally accepted size of series, yet, along with the production of subassemblies for buses it is feasible and reasonable to manufacture identical or similar subassemblies for trucks.

But we must stop here. When we studied the situation of the Hungarian motor industry and interviewed vehicle manufacturers, sellers and users, we could not miss the fact that the industrial policy aspiration indicated in the above examples did not bring the results we would expect them to produce considering the international tendencies we intend to follow. The parallel technological development of finished vehicles, subassemblies, parts and fittings and, consequently, the uniform technological standards and competitiveness of the vehicles haven't been accomplished at all. We mean the following.

According to the original concept of the road vehicle program, Hungary was only supposed to introduce the production of large category buses and to import for them not only propeller shafts, front axles, driver's seats and windscreen-wipers but also, for example, gearboxes and shock absorbers from other CMEA countries. It was presumed to import the first ones from Poland and the latter ones from the Soviet Union. The Hungarian industrial management also planned to satisfy the demand for small and medium category buses from CMEA imports.

Today bus users complain because of the narrow range of completed vehicles and the bus designers because of the narrow range of subassemblies. Users claim that small and medium category buses are missing or what is available (Ikarus 553, 6.5 metres, and 211,8.5 metres) is laden with engineering bugs the designs being made in a hurry. Moreover, also a large category bus to meet demands of certain buyers at home and abroad for simpler and more heavy-duty buses that would be at the same time cheaper too, if possible, is missing. The users therefore cannot but accept forced substitutions: they must purchase and use large buses instead of smaller ones and luxury ones instead of simple ones.

If one interviews Hungarian designers about these shortages of range there are two things they would reply. First: according to the original plans, Hungary should not have manufactured small and medium categories of buses and Ikarus set to it only because it was forced to. Namely, against expectations, it was not possible to import such buses from other CMEA countries: either the amount of the supplied GDR, Polish or Romanian buses was not sufficient or the quality of the vehicle was below the Hungarian requirements. And so they happened to start the production of small and medium category buses without proper preparation and the vehicles turned out could not be designed as integral members of the Ikarus 200 type family.

The other reason is the following: The Ikarus designers did not have subassemblies with satisfactory parameters for designing the small and medium category buses. Finally, in the course of design they reverted to forced substitution: the engineers accepted the

subassemblies built into similar category trucks in Czechoslovakia or in the GDR which often necessitate technological compromises for being used in buses.

Designers often reverted to emergency solutions also in the case of the large category buses. The Soviet manufacturer of the imported front axles turns out enormous series of front axles for trucks and is willing to consider only part of the aspects of adaptation for buses. The same was to happen with the Soviet shock absorbers but in that case the compromise was beyond what could be accepted and therefore the use of Soviet shock absorbers had to be given up. A Hungarian medium-size enterprise undertook the production of shock absorbers. Under British licence they manufacture top quality shock absorbers in very small batches (we will revert to this later on).

In other cases contemplated imports failed to come because of the lack of export capacities of the partner country (Polish gearboxes). Thus it became necessary to continue to manufacture and use the existing obsolete product in Hungary (AS gearbox) which spoils the quality of the whole bus, and later on to introduce a new product under a licence but only for domestic needs (ZF gear).

What is the resulting situation? More types of buses are manufactured in Hungary than was originally contemplated and completed buses are imported only exceptionally (small category kobur buses from the GDR). Because of the lack of availability or because of interstate agreements, the Hungarian manufacturers must take technical compromises with regard to all the mechanical parts of the small and medium category buses and some subassemblies of the large category buses. In other cases, again unlike the original concept, the indigenous production of some subassemblies had to be organized in order to satisfy solely or mostly domestic requirements, and in most cases in series much below the internationally accepted size. In these cases the given production technology is adopted in the service of merely the Hungarian bus production and hence not only the production costs are high owing to the small series but also the development costs are less likely to be returned. Consequently, the funds can never be sufficient for continuous technological development and once up-to-date products grow outdated in a couple of years.

What does this mean in the practice of the motor industry? The buses produced in series by Ikarus, the Hungarian manufacturer, are assembled in part from Hungarian made subassemblies\* and in part from those imported from CMEA\*\* countries. The technological standards and quality of these vehicles are uneven. These finished vehicles

\*Rába-MAN engine manufactured in Rába Works, Rába rear axles, power-assisted steering gears made in Csepel Auto Works and mechanical gearboxes – so far of the type AS and in the future of the type manufactured under a West German ZF licence – by the same firm, brake system under W. German Knorr licence produced by K.M.G. Factory for Small Engines and Machines, and by SZIM Machine Tool Works, Taurus rubber tyres, the generator of the A.V.F. Factory for Automobile Electricity and its starter manufactured under Bosch licence, Ujpest Factory for Machinery Elements' shock absorber under the British Girling licence, etc.

\*\*Soviet front axles, ZIL pump, Polish injection pump and windscreen-wiper motor, Czechoslovakian automatic gearbox, GDR propeller shaft and driver's seat.

can by no means be "products selling economically in every market". Markets with lower requirements do not pay for the higher quality but more expensive items built into them (better seat upholstery or ZF speed gear), while markets with high requirements do not accept the poorer parts of units built in by compromise (e.g. the Soviet front axles and the Hungarian rear axles, the Hungarian mechanical or the Czechoslovak automatic gear). The products delivered to markets with higher requirements are therefore unique pieces different from those manufactured in series and are fitted with main parts and component units as specified by buyer and procured from outside the CMEA.

In lack of a convertible currency, that is, in circumstances when the inputs and receipts incurred in forints, in hard currency or in roubles are not comparable, subassemblies originating from outside the CMEA cannot be built regularly into vehicles to be sold at home or in the CMEA market. It follows that the advantages offered by subassemblies originating from outside the CMEA cannot be taken into account in forming a standard vehicle design. Similarly, the advantages offered by such import possibilities for improving the technology of production cannot be realized either. We thus find here a particular obstacle to the spreading of technological attainments.

The fact that the technological standards of the completed vehicles are so far from being even is related in several respects to the special *foreign trade mechanism* of the CMEA. It was mentioned above that the Hungarian motor industry is helpless in two respects because of the relations with CMEA partners. In some cases the necessary completed vehicles (smaller, that is, cheaper buses) or subassemblies (gearboxes, shock absorbers) were not available and in other cases the Hungarian party was regularly forced to accept and use subassemblies of unsatisfactory quality and technological standards (front axles, injection pumps, and perhaps in future hydro-mechanical gearboxes) which impairs the technological standards of the completed vehicle and its competitiveness.

The question whether the expected favourable advantages of international cooperation assert themselves or not, a positive answer may be given in one respect. Through economies of scale, international specialization works towards cost reduction. However distorted the CMEA prices may be, economies of scale nevertheless play a role in the often very advantageous prices of imported subassemblies.

At the same time, the impact of international specialization on providing the conditions for continuous technological development and the spreading of technological attainments does not really assert itself. In fact, it sometimes seems as if we felt the contrary.

In the CMEA countries, inter-state agreements are the main instruments of the administration and control of foreign trade relations. These usually lay down commodity deliveries for a long time ahead and mostly in terms of quantity. Government organizations and ministries cannot be expected to be attentive of every detail of the technological parameters and government agreements cannot be amended every time demands change. In a field such as the motor industry the main point is how the frameworks provided by the inter-state agreements are "filled in" in the relations between partner companies.

It is prevalent in the relations between partner companies in the CMEA that *the user is at the mercy* of the supplier. The symptoms of shortage economy are, as a rule, characteristic of the CMEA market and suppliers are often in monopoly position. But there is more to it: even if a potential competitor exists in the CMEA he will scarcely be interested strongly enough in enhancing his export to Hungary, and for this reason in most cases he will never make an offer to the Hungarian buyer: Hungarian users often do not even know of his existence. Enterprises of the CMEA countries are not under pressure to make the slightest modification in the technical parameters of their products or in the process of production to meet specific requirements of Hungarian users. The reason for the frustration of imports of some parts for small category buses were probably of this type, and this makes it difficult to get the technical parameters changed also where the Hungarian user finally cannot but accept to import some subassemblies (such as Soviet front axles and several IFA (GDR) subassemblies).

There is a further special barrier to competition within the CMEA. Once the user adjusted himself to importing some subassembly it would be very likely of no avail to find a better source at home or in another CMEA country. CMEA trade is namely bilateral not only in the sense that turnover between two countries must be balanced, but often also in a narrower sense, sometimes described by the term cooperation, i.e., even if the quality of a subassembly is unsatisfactory or comes with regular delays from some country, the receiving country cannot call the order off because the deliveries in question and its own deliveries of subassemblies or completed vehicles to that country are linked to each other. To cancel the order would endanger its exports even if the quality and schedule of the country's own export shipments are impeccable. Moreover, quality claims, let alone any possible cancelling of orders, are considered to be politically delicate issues.

In such circumstances it is really difficult to enforce quality claims and demands for technical modifications. The problem is rendered still more difficult by the circumstance already mentioned, i.e. that relations between partner companies in the CMEA are not direct inter-firm relations but are transacted as inter-state relations through the agency of foreign trade and industrial ministries, and sometimes even of government officials.

The aforesaid clearly show the reason why the favourable impacts of participation in the international division of labour assert themselves so ineffectively and onesidedly in the technological development of the Hungarian automotive industry. But so far only the role of external factors has been stressed although also the domestic economic control plays a certain role in it. Also the domestic system of inter-firm relations must be studied from the aspect how it promotes technological development. The following discussion will be therefore concentrated on domestic inter-firm relations.

# Relations between big enterprises

The most significant of the Hungarian inter-firm relations in the motor industry is the - practically joint - production of buses by Csepel Auto Works and Ikarus' the selfcarrying chassis (equipped with mechanical subassemblies) is manufactured by Csepel Auto Works, the body is built by Ikarus. Deliveries to these two enterprises constitute another important part of the relations: Dunai Vasmű (Duna Iron Works) delivers mainly structural steel sections to Csepel Auto Works; the same and steel sheets to Ikarus; Rába Works provides Diesel engines and rear axles, Ipari Szerelvény- és Gépgyár (Factory of Industrial Fittings and Machines) provides the assembled completed Soviet front axles, Ujpesti Gépelemgyár (Factory for Machinery Elements, Ujpest) gives shock absorbers while the Szerszámgépipari Művek (Tool Machine Works), in cooperation with the latter the Kismotor- és Gépgyár (Factory for Small Engines and Machines) deliver brake equipment to Csepel Auto Works; the Factory for Small Engines and Machines also delivers chassis accessories and equipment for the passenger area to Ikarus; electrical appliances are delivered by the Factory for Automobile Electricity to Csepel Auto Factory and by Bakony Metal and Electric Appliances Works, Villtesz Industrial Cooperative, Kontakta Parts Factory and the Electric Equipment and Appliances Works to Csepel Auto Works and to Ikarus; Csepel Auto Works gets the tyres and pneumatic springs from Taurus, Ikarus gets the floor board from Mohács Wood-Fibre Factory and the paints from Tisza Chemical Plant and from Budalakk, it gets the plastic material for seat upholsteries from Győr Cotton Weaving and Leatherette Factory Grabona, and so on.

Also the metallurgical and engineering deliveries (Hungarian Steelware Factory, Lenin Metallurgical Works, Borsodnádasd Sheet Factory, Diósgyőr Machine-building Factory) required for engine and axle production in Rába Works are of importance.

Ikarus, Csepel Auto Factory and Rába Works are the main buyers of most of their suppliers.

For the production of completed vehicles in smaller quantity, also Rába Works and Budamobil Cooperative procure a big variety of subassemblies and parts, mainly from the enterprises listed above. Most of the enterprises listed cooperate with auxiliary workshops of agricultural cooperatives. A small (and steadily decreasing) number of agricultural machine-building enterprises or their factories also work for vehicle production.

A part of the enterprises listed above get into contact in R&D activity with the Research Institute for Automobile Industry; nearly all of them have contacts in domestic sales (at least in spare parts sales) with Autoker (the domestic commercial firm selling cars and parts) and in foreign sales, and partly in imports, with Mogürt (the foreign trading company.)

Decision by organs of state administration plays a more pronounced role in relations between enterprises involved in road vehicle production than is usual in the engineering industry. This was particularly true in the period of the central development project, i.e., until 1975, but "tight control" has been pratically maintained till this very

day. Therefore, in this sector the special features and consequences of direct state control over enterprise relations show very clearly.

It is characteristic of the intensity of control exercised here that - unlike in most other fields of the national economy - it covers the setting of cooperational prices. That is, in road vehicle production, not only the raw materials and the products to be sold for end use have fixed prices but also the prices of subassemblies are fixed by the Ministry of Metallurgy and Engineering as a price authority of first instance. Moreover, when the supplier belongs under its supervision, it even sets the prices of cooperational products worth a few hundred forints. The prices are fixed for the Rába-MAN engines and axles, for floor supports, gearboxes, servo steerings, leaf springs, pneumatic springs, shock absorbers, starters, generators, propeller shafts, etc.

The fixing of prices is of course closely correlated with the state control of the directions of purchase and sale and with channelling them into forced paths. Namely, prescriptions of the latter type would obviously loose from their efficiency if prices were not fixed simultaneously.

So, as a rule, it is subject to state decision whom and for how much the delivery is to be made. On the other hand prescriptions concerning the quantity of deliveries between enterprises are scarce. Here directives are replaced in part by interests, in part by habits, in part by a sort of self-control: for example, Rába Works delivers Ikarus the quantity of motors it needs without any special instruction. It considers this part of its production to be *ab oro* under contract and does not try to export it, although a higher price could be attained in foreign markets — it would not get the permission anyway.

What justifies such a tight central control over relations between enterprises of the motor industry?

One of the justifying factors, the central development project that guaranteed priority until 1975, was already noted. At that time a special Department for Road Vehicle Production was organized in the Ministry of Metallurgy and Engineering – this was the only sectoral department of the ministry.

Another factor is that a considerable part of the end product is exported to socialist countries. In 1975, in terms of pieces produced, 72 per cent of buses, 70 per cent of rear axles, 18 per cent of Rába-MAN engines and 42 per cent of servo steerings were exported to CMEA countries. Considering also indirect exports (units built in into completed vehicles) this share was 89 for rear axles, about 60 for Rába-MAN motors and about 80 for servo steerings. Under such circumstances cooperation shipments are overwhelmingly preconditions for the realization of exports to socialist countries – which in most cases mean inter-state obligations too – and in part this is why they "deserve" the keen attention of state administration. During the 1970s it became an expectation that this sector should supply Western exports too. This was accompanied by a strengthened monitoring by the state administration of exports directed to capitalist countries and again implied monitoring of the cooperation "background" as well.

Last but not least, the third main reason of the powerful state control of enterprise relations is the *monopoly type of these relations*: in the market of most of the products

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- subassemblies and parts - a single seller (producer) meets one or a few users. Consequently, the seller or - because of the convertibility of the seller's capacities, the exportability of his products etc. - more frequently the user becomes exposed. And the state gives a hand to the defenceless party.

State control is thus strengthened by monopoly; let us check if there is an inverse correlation, is it not that monopoly is produced by state control?

In Hungary it is not likely to be economically feasible in vehicle production to make big or even medium-sized enterprises capable of producing substitutable products compete with each other (as against some branches of e.g. the food industry etc.). Monopoly could be lifted in two ways: by removing the obstacles to choice between domestic and foreign purchases and sales, and by setting up small factories that would compete with each other.

The second possibility is the subject of the next chapter. With respect to the first possibility it has to be made clear first whether it actually exists or not. But here we are not going to give an answer of general validity, nor are we going to indulge in this extremely complex problem. From our point of view it is sufficient to state that in the cases we know the state administration — meaning here practically the Ministry of Metallurgy and Engineering — gave preference to maintaining the monopoly even at times when all conditions were given or accessible for free choice between domestic or foreign purchase and for the introduction of competition.

Thus, for example, Ikarus does not have the right to get front axles from Rába Works in spite of the fact that the imported Soviet front axle is practically produced in a single version and is not the most suitable one for all the Ikarus buses (mostly the long-distance ones). When the Soviet imports started Rába Works were actually forbidden to manufacture front axles. Then it was allowed - but not for domestic sale. At present Rába Works produces swing-axles (suitable for long-distance buse) for exports to Czechoslovakia. If they wanted to fit such axles in some of the Ikarus buses, the reduction of Soviet imports could entail trade balance problems; especially if Rába Works undertook to produce not this but really an advanced type of swing-axles it would need investment. So perhaps here one might argue that the price would have been too high for allowing a domestic and a foreign supplier to compete. Another similar case could have been a much simpler decision: to substitute for the not too up-to-date Polish windscreen-wiper motors an up-to-date appliance of the Factory for Automobile Electricity. Here the investment requirements were much smaller and the amount of missed import much smaller too; economical serial production would have been guaranteed by the demand stated by the GDR. But the windscreen-wiper motor was deleted from the factory's plan by the Ministry of Metallurgy and Engineering, when the plan was "judged".\*

\*Judgement of enterprise plans by ministries: a system of indirect approval of enterprise plans which became a custom in the mid-seventies in Hungary. According to the 1968 reform which abolished the system of plan-instructions, plans are drawn up by the enterprises independently and need not be referred to any higher authority for approval.

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It is the typical approach of ministerial control that when some subassembly or part is available from some (non-Western) source then the creation of another source is not worth the input; quality improvement must be guaranteed not through competition but (in the case of Hungarian enterprises) through directives. This approach restricts the notion of economic advantage to the only correlation: "big series" and "low cost". The division of labour between enterprises is tackled by ministerial control as a purely technical problem: it tries to organize the activity of the sector as of a big factory, starting out from the demand for the end product. This sometimes leads to rather distorted enterprise relations. Let us look at two extreme examples.

The division of bus production between Csepel Auto Works and Ikarus must be unique in the world. True, it often happens in the capitalist motor industry that the chassis is built by one plant and the body by another one, but it does not happen that both are big enterprises of approximatively the same capacity and are, in addition, mutually and actually the sole partners of each other (Csepel Auto Works produces chassis only for Ikarus and this constitutes the bulk of its value of output, while Ikarus builds bodies only on chassis made by Csepel Auto Works, not considering the small quantity of foreign chassis). Mutual dependence is far too close and each company tries to dictate, something that neither of them can achieve since they are about equally strong. This strains their relations, introducing various kinds of difficulties into the actually joint production of buses and finally solicits (reproduces) regular operative interventions by the ministry.

What made the two enterprises agree to be "locked up" like this? When (in 1970) the decision was made about splitting production Ikarus did not find it to be any particular problem that Csepel Auto Works was controlled through the Ministry of Metallurgy and Engineering (and the said approach to control of the ministry was not unfamiliar to Ikarus). On the other side, Csepel Auto Works did not realize at that time that the ministry meant business when it planned to wind up some of its other lines; it did not realize that it was going to become its main line to manufacture chassis for Ikarus. Since then both enterprises regret that they "wedded".

The other extreme example is the Factory for Small Engines and Machines. This big company is the "manufacturer of fittings" to supply the Hungarian vehicle industry. The Factory for Small Engines and Machines makes – if necessary, also in small batches – for what the ministry cannot find production capacity elsewhere. It manufactures the part of bus brake systems that were dropped by Machine Tool Works; furthermore, it makes 10 varieties of diesel motor injection pumps, 120 pcs a year in total (this is not for road vehicles but for railway engines); and it is also in charge of manufacturing straps, umbrella holders and newspaper containers for buses as demanded. When the products are not of the appropriate quality it need not worry about its export markets because in its quality of "manufacturer of fittings" for domestic vehicle production it needs not to have export markets and it actually hasn't any. It is a 'grocery' which is monopolistic in terms of various products turned out usually in small quantities, and if some of its products did not satisfy the buyer's requirements the latter would only do it a favour by relieving it

from the production of that item. But the user cannot afford that because he needs that item. So he keeps buying and complaining. The logic of inter-firm relations may be traced back again to the operative and detailed "coordinating" control by the ministry: enterprise relations established through higher control elicit even more minute control.

The self-strengthening influence of direct administrative control of enterprise relations manifests itself also in price and income regulations. Fixed cooperational prices mean that the income of suppliers does not depend on the buyer's valuation of the end product made with their cooperation. Fixed prices prevent the common interest of enterprises strongly interdependent from the technological and production aspects from realizing itself and sharply separate the enterprises in this respect. Satisfaction of requirements towards assortment and quality are not linked to any strong profitability implications and, therefore, ministerial directives are hoped to attain it through as painstaking regulation of enterprise relations as possible.

Of course, the number of details that can be covered from the centre is limited and thus the enterprises can always spoil cooperation through some uncontrolled detail. Moreover, beside the difficulty of control techniques, there is also one of sociological nature: it occurs that the enterprise simply won't carry out what the superior organization demands it to do or that it appeals to some other higher authorities for protection against its own ministry, etc.

Nor is it quite sure that it is advantageous if the factories are obedient: the problems emanating from the monopolistic nature of relations are not limited to shortcomings immanent in the tight central control, indispensable under such circumstances. Even if they do their best, the big enterprises are still too little to satisfy each other's demands for assortments. When the companies are strongly interdependent this will necessarily produce a whole series of technological compromises and obstruct technological development. E.g. according to the international tendencies certain types of buses ought to be fitted with engines stronger than 192 HP. Rába Works could supply such ones but until very recently the suitable gearboxes have not been available in Hungary.

Up to now we have used in the analysis for base of reference a hypothetical situation where the enterprises have full freedom to select their partners. But the aforesaid have also shown that the actual situation is not tantamout to the opposite extreme, not even if it is nearer to it than to the former. The strive for this opposite extreme, for a "still better coordination" of enterprises' activities is reflected by the recurring propositions – in some explicit or implicit form – to bring about a trust for the automobile industry. Had this "still better coordination" been realized, many important and promising initiatives could not have taken place in this sector. Let us recall the manifold foreign cooperation relations of Rába Works by virtue of which it is becoming an internationally significant manufacturer of subassemblies – in the "coordinated" automibile industry it would obviously have to satisfy domestic demands for subassemblies and parts in small series (as its counterparts in Czechoslovakia and Romania actually do). By the way, this had been in fact considered: according to the original concept of the development project Rába was to manufacture small batches of axles for

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medium category (8.5 m) Ikarus buses. The enterprise refused. But there were other autarkic development concepts expressly and solely serving domestic vehicle production that have not been frustrated. In extreme cases such developments — as occurred even in the 1970s — result in the production of sub-optimal series. But even if the result is not that bad, energies will be fragmented anyway. This will be illustrated through the example of the shock absorber manufactured under British licence.

By international standards the series produced - in accordance with Hungarian demands - by the Factory for Machine Elements, Ujpest is small and not economical. What is more, the enterprise, after having learned the given culture of production and technology - and having achieved a rare thing: Ujpest shock absorbers are better than the products of Girling's who originally provided the licence - has no access to continued development so as to expand its production according to export opportunities or to introduce the production of shock absorbers of other size categories (of course also for export) and to make use of the energy it has invested and the knowledge it has accumulated. The end-product-centred approach of the ministry gives up the benefit that could be gained from the development of previous investments. It rather spends the development funds on creating new and new "background industries" at greater risk and with slower rate of return.

# Cooperation with small enterprises

Beside increased openness in foreign trade, the other way of dismantling the monopolistic relations between big enterprises is cooperation with small enterprises. In this context, for reasons to be given later on, mainly the auxiliary industrial workshops of agricultural cooperatives will be discussed.

Cooperation with small enterprises is a highly suitable way to manufacture components and to perform certain processing on the products. It has the advantage over arrangement within a company (inclusive of its countryside plants) that part of the risk is shifted and it is cheaper, while over cooperation with major enterprises the fact that one can dictate to small workshops and there is no irremovable obstacle to their competition inside the country. When the supplier is a small enterprise, the exposed one will be the latter and not the big factory buying its products.

Leaders of big enterprises often, and the officials of the Ministry of Metallurgy and Engineering usually, doubt these advantages.

This goes first of all for shifting the risk: the fact that investments are risky and therefore they should be better done by others, sounds rather strange to the way of thinking prevailing in enterprise management and especially ministry quarters here. In Hungary the financial constraints on investments are weak and when the current functioning of an enterprise leads to losses then its burdens will be ultimately "socialized" too. The circumstance that investments of big enterprises are often free "juggles away" the cheapness of cooperation with small workshops – inasmuch as smaller capital intensity is

one of the very factors of cheapness (the agricultural cooperatives often have buildings for auxiliary plants, they have cheap and efficient construction sections of their own, etc.).

Managers in the large-scale industry often claim that cooperation with auxiliary workshops is not cheap but, on the contrary, expensive because of the low technological standards of production. But there are some features in the Hungarian price system which render production with low technological standards not expensive but cheap. Or is it possible that the technological standards are so backward in the auxiliary plants that production is already expensive even in this price system? In some cases it may be so, but why need it be of backward technological standards?

Before giving an answer let us continue asking questions. Further alleged factors of expensive production in small workshops are high wages and a high rate of profit charged. It is more than doubtful that this thesis of "shockingly high incomes" holds at all. This is only a prejudice backed up by a few examples as are other catchphrases against auxiliary workshops. But the examples, that is, that high incomes *do occur* in some auxiliary workshops, must be accepted. Why is the big enterprise forced to pay the high price? Now, together with the cheapness of cooperation with small plants, also our assumption that in such cooperation the supplier small plant is at the mercy of the customer big enterprise and not conversely, becomes questionable.

And indeed, many managers of large-scale industry lament because of their being exposed to the small supplier auxiliary plants. We are not going to accept any biassed generalization here either, but we accept that such cases do occur: some big enterprises are dependent on some of their small suppliers and are unable to get some product or part from any one else. But the reason is usually not a technological or economic obstacle: the big enterprise could organize and train another small plant for this production, and could easily offer it financial help, if necessary, for a minimum investment. This is why we have said that in this sphere there is no irremovable obstacle to competition. Let us add: according to the aforesaid, potential competition always exists here. When small plants can still gain monopoly position, this happens because the setting up of new small plants and the development of the existing ones are restricted.

We do not want to discuss here the general problems of the disadvantageous position of small enterprises in Hungary, the circumstances that hamper the development of industrial cooperatives and small enterprises supervised by local councils or ministries. Very few of the above can be regarded as really small enterprises anyway, and when they still happen to be developed they leave this sphere for good. Also, what was said about the limits to the creation of new small plants cannot be referred to these: there is nothing to restrict here, nobody wants to set up new industrial cooperatives or small plants supervised by local councils and ministries. As for the local councils, the most attractive way of industrial development for them, sure to attract capital and to guarantee the resolving of management problems, is to build local plants of big enterprises ("removal of industry to rural areas"). Sectoral ministries, again, would rather wind up small enterprises than set up new ones as their management only gives them trouble and they do not

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serve perfectly unequivocally the implementation of their specific natural targets: it would be useless for the Ministry of Metallurgy and Engineering to set up small plants in order to serve the motor industry because these, the flexible though they typically are, might work not for automobile production or eventually not even for the engineering industry belonging to the sphere of the Ministry of Metallurgy and Engineering. They would be set up at high costs and yet they would perhaps not solve any of the problems of the ministry.

In the socialist sector actually only agricultural cooperatives show the ambition to set up new small industrial workshops (this is why they are considered first in this discussion of the problem of small plants) and this is where the said restriction applies.

The biassed atmosphere condemning these enterprises, developed in the campaign against auxiliary industries in the early 1970s, is a peculiar feature of this restriction. However, the formal – financial and administrative – tools of restriction are of no less importance.

Tax is the most important financial instrument, introduced with the objective of levelling economic conditions for auxiliary workshops with those of industrial enterprises laden with heavy tax burdens. When industrial activity produces less than 30 per cent its total receipts, the agricultural cooperative does not pay such special tax. Above 30 per cent it becomes an agricultural-industrial cooperative and pays 10 per cent tax after its entire industrial activity and above a 50 per cent share of industry, then already called an industrial-agricultural cooperative, it must pay 20 per cent tax after its entire industrial activity. We cannot argue whether the tax rate corresponds with the declared objective of levelling or not. But the non-graded and rather strong progression of taxes (which is unique in our system of taxes) apparently seems to serve as a deterrent against the expansion of industrial activity: the tax abruptly and enormously surges when the 30 or 50 per cent share is reached by industrial receipts. This hinders the organic further development of industrial cultures learned. E.g. in one of the auxiliary plants visited in the course of our research this is why they do not consider to develop it any further. There is no need to go into the details of the harmful impact of such barriers to development. However, we remind of a question left unanswered; why do the auxiliary plants have to work with low technological standards? In part just because of the aforesaid, as restriction of the volume of production sets limits to the technological standard as well.

The practice of administrative restriction gives another explanation, and one backed up by a practical example of this research again. Agricultural cooperatives are allowed to pursue auxiliary activities in the engineering industry depending on the permission – exemption from the prohibition – by the Ministry of Metallurgy and Engineering, and such permissions are issued by the ministry usually for the period of *only two years*. After two years the permission is usually prolonged – as the product manufactured in cooperation is still needed by the partner enterprise – but nobody guarantees it in advance. And it is not reasonable to make considerable investment and to raise technological standards for a two-year "perspective".

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All over this study it has been analysed how the relations between enterprises - in part reaching beyond frontiers and in part within the country - take shape in the Hungarian motor industry and what is the influence of their particular system upon technological development so crucial in this branch.

The tendencies of international development in this branch were chosen for terms of reference. It was stated that with respect to the development of division of labour between enterprises and to enterprise relations, industrial development of the West European countries and that of the CMEA countries bordering on Hungary showed different trends. Although the Hungarian economic policy aimed at a more rational line of development reaching beyond autarkic aspirations, the restrictions of the CMEA institutional system and the lack of interest in reasonable cooperation and specialization have not allowed the advantages expected from participation in the international division of labour to assert themselves in full as yet.

It was observed that domestic enterprise relations are under tight direct state control and a mutual relationship was established between this and the monopolistic nature of the relations, i.e., that in most fields a single supplier meets often only one or a few buyers. Stress was laid on that aspect of this mutual relationship that ministerial control, treating the division of labour between enterprises as a purely technical problem, does not have any intention to remove the monopolistic nature of these relations. Monopoly results in technological compromises and leaves demands for assortments unsatisfied on the one hand, and forces the suppliers to produce in sub-optimal series, while failing to encourage them to improve the quality and reliability of their products and to cut down their costs on the other hand. Detailed ministerial control of technological development cannot offer but a very incomplete substitute for such impacts of competition.

Deliveries and outwork done by small plants – mostly by auxiliary workshops of agricultural cooperatives – might obtain an important role in manufacturing automobile industrial products. In this field, however, a paradoxical situation prevails: the negative symptoms quoted as arguments for restricting the auxiliary workshops (namely, low technological standards and high income claims) came about and were preserved just in consequence of the restrictions effected.

# Reference

1. Autó - Motor 1978. No. 1, p. 7

#### ВЗАИМООТНОШЕНИЯ ПРЕДПРИЯТИЙ И ТЕХНИЧЕСКОЕ РАЗВИТИЕ — НА ПРИМЕРЕ ВЕНГЕРСКОГО АВТОСТРОЕНИЯ Т. БАУЭР—К. А. ШООШ

В статье анализируются связи между предприятиями в венгерской автомобильной промышленности, как выходящие за пределы страны, так и внутри страны, а также влияние, оказываемое этой своеобразной системой на технический прогресс, имеющий для этой отрасли промышленности ключевую важность.

Авторы констатируют, что для промышленного развития стран Западной Европы и большинства стран СЭВ характерны различные направления в развитии распределения труда между предприятиями. Хотя венгерская экономическая политика стремилась к достижению более рационального, лишенного черт автаркии направления развития, условия институциональной системы СЭВ, отсутствие заинтересованности в рациональном кооперироеании и специализации до сих пор не сделали возможным полное развертывание преимуществ, предоставляемых включением в международное разделение труда.

В отношениях между отечественными предприятиями наблюдается интенсивное непосредственное государственное управление, что связано с монополизацией этих связей, с тем, что в большинстве областей единственный поставщик имеет часто дело с одним или несколькими покупателями. Авторы подчеркивают то обстоятельство, что министерства, подходя к разделению труда между предприятиями как к чисто техническому вопросу, и не стремятся к смягчению монопольного характера связей. Монопольный характер, с одной стороны, приводит к техническим компромиссам и к неудовлетворению ассортиментных потребностей, а с другой стороны, вынуждает поставщиков выпускать субоптимальные серии, а также не стимулирует их к повышению качества и надежности своей продукции, к сокращению издержек. Такой эффект конкуренции можно лишь в очень небольшой степени восполнить с помощью детального управления техническим развитием со стороны министерства.

В производстве комплектующих деталей автомобильной промышленности важную роль могли бы играть поставки и использование рабочей силы мелких предприятий, в основном подсобных производств сельскохозяйственных производственных кооперативов. Однако в этой области сложилось парадоксальное положение: те негативные явления, которыми в Венгрии обычно оправдывают ограничения по отношению к подсобным производствам (низкий технический уровень, высокая потребность в прибыли) возникли и сохраняются именно в результате введенных ограничений.



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# **O. BOGOMOLOV**

# COOPERATION FOR INTEGRATION AND THE PROBLEMS OF BUSINESS RELATIONS WITH DEVELOPED CAPITALIST AND DEVELOPING COUNTRIES\*

Utilization of the benefits and advantages of a wide international division of labour has become an important factor in intensifying the national economies of the CMEA countries and in the 1980s we have to expect an expansion and not a contraction in economic cooperation between countries with different social systems. At the same time it seems necessary to further strengthen the material conditions of the CMEA countries for their participation in the world-wide division of labour, to rationalize their relations with countries with different social systems, to unite their efforts for the solution of common problems, and for the neutralization of adverse tendencies that have emerged in recent years.

1. The policy of peaceful co-existence, the course towards the easing of international tensions are inseparably linked with the expansion of mutually beneficial cooperation on equal terms among countries with different social systems. Increased activity in trade, production and scientific-technological relations with developed capitalist and developing countries over the last decade played in general an undoubtedly positive role in the economic growth of the socialist countries.

At the same time, beginning about the mid-70's objective conditions for cooperation among countries with different social systems have started to change considerably: new trends have appeared in the world economy which have far-reaching consequences and inevitably affect the interests of CMEA countries. From among them it seems necessary to underline the following ones:

- an overall recession has set in in the West, signs of a deep crisis have emerged in the economy of capitalist countries, sales conditions for the socialist countries have deteriorated, a certain weakening of interests of western partners in cooperation with CMEA countries can be observed which is connected with the increased real and potential roles in the world economy of such new markets as certain rapidly industrializing developing countries, members of OPEC and China;

- the energy crisis in the capitalist world economy is aggravating, a 12-fold (and on free markets a 20-fold) increase in oil prices occurred as compared with 1973, and in 1979 a 4-5 per cent absolute shortage emerged in the current consumption of oil; there is high probability that the present situation will be prolonged and even become aggravated at the markets of energy resources at least up to the end of the 1980s;

\*Based on a paper submitted to a Soviet-Hungarian economic round-table conference held in Budapest, November 1979.

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- the leading capitalist countries are unable to cope with inflation. The overall price rises in the world economy appear - although with smaller intensity - also in the mutual relations of the CMEA countries. The costs of credits have sharply increased. The whole international monetary system has become unstable and this is an independent factor contributing to deterioration in the overall economic conditions.

There have been changes in the domestic conditions for growth in the CMEA countries. In the majority of these countries tasks of a *comprehensive intensification of the national economy*, improvement of efficiency and quality, application of the achievements of the scientific and technological revolution have been pushed more and more to the fore. In the economies of the fraternal countries processes of socialist integration, combination of efforts for a collective solution of the largest national economic problems have started to obtain ever more important roles.

On the other hand, the second half of the 1970s is marked by a definite slow-down in the increase of the national product in the CMEA countries, by an as yet persisting imbalance between output and productive and consumption demands. Often shortages emerge in a number of important products (including even energy resources and some raw materials) at the international CMEA market because of limited investment opportunities and also because the mechanism of cooperation is not suited for an effective solution of the whole complexity of integration problems.

In relations with countries having different social systems such problems of the CMEA countries have revealed themselves more and more apparently over the recent years as weakness of the traditional export base, insufficient competitiveness of the exported finished goods, difficulties in pooling the necessary export resources under the conditions of over-strained domestic supply conditions, a not rational enough import structure; chronic deficit in the trade with the West; excessive growth of indebtedness towards Western partners.

2. In view of all this we have to be cautious in evaluating the prospects of cooperation for the 1980s between CMEA countries and countries with different social systems. Of course this does not and cannot imply (first of all for objective reasons) a course towards national or collective autarky. In his message to the participants of the 33rd session of the Council for Mutual Economic Assistance, L. I. Brezhnev, General Secretary of the Central Committee of the Communist Party of the USSR, said: "The Soviet Union will be ready also in the future to promote as much as possible the efforts of CMEA to extend mutually beneficial relations with other countries and organizations, to fight for the just solutions of fundamental problems of the world economy, for the improvement of the whole system of international economic relations."

Utilization of the benefits and advantages of a wide international division of labour has become an important factor in the intensification of national economies in the CMEA countries and, obviously, in the 1980s we have to expect an expansion and not a contraction in the extent of economic cooperation between countries with different social systems. At the same time it seems necessary to further strengthen the material conditions of the CMEA countries for their participation in the worldwide division of labour, to ration-

alize their relations with countries having different social systems, to unite their efforts for the solution of common problems, and for the neutralization of adverse tendencies that have emerged in recent years.

It seems that a most important role (a more active one than today) in increasing the efficiency of relations with the West and the developing countries could be played by possibilities inherent in the socialist integration. Socialist countries have already accumulated a significant amount of favourable experiences in utilizing connections with countries with different social systems for our common advantage.

As an example for such kind of successful cooperation one can mention the joint purchase of pipes and compressors for the gas pipeline "Soyuz" or of equipments for the works in "Usty-Ilimsk" made by the CMEA countries at Western markets. These joint actions will surely have noticeable advantages for the participants in the construction of the gas pipeline. In practice a number of examples are well known when cooperation among our countries in the specialization of production was connected in one way or another with expanding cooperation with Western firms. Such an example is cooperation in the production of the "Lada" car which was initiated in the Soviet Union by relying on the licences of Fiat works. Besides the domestic market these cars are sold in the CMEA countries participating in the cooperation, and also at the markets of third countries. Cooperation in the construction of "KAMAZ" works is of a similar nature.

As it is well known, bus production in Hungary is based on a sicentific-technological and production cooperation with the Soviet Union and other CMEA member countries on the one hand, and on the production of modern diesel engines under the licence of the West-German MAN firm on the other. Production of rear axles of high quality, standardized (unified) together with the Soviet Union, is organized in Hungary with high-precision and highly productive equipment purchased in the West. Big and steady orders of the Soviet Union for "Ikarus" buses have made it possible for Hungary to organize one of the world's largest-scale mass production of buses and to come out with it on the markets of third countries.

Agreements concluded between the Soviet Union and Hungary on specialization and cooperation in the p oduction of painting equipments, on deliveries of chemical plant protectives from Hungary in exchange for large quantities of Soviet chemical products and the conclusion of other Soviet-Hungarian agreements are also associated with the development of certain types of production on the basis of obtaining Western licences and cooperating with Western firms.

It should, however, be noted that the extent of our joint activity in economic connections with the non-socialist world are at present far from our potential possibilities. No doubt, the problem number one in this field is that of export resources, export capacities, competitiveness of our exports and, we might say, the extent of our "export expansion". Here we are facing common tasks, and combination of efforts on a collective basis right in this field is the most important and, what is more, an indispensable precondition for common success.

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3. Under the present conditions, and particularly in the long run, a more and more active participation of CMEA countries in the international division of labour by way of specialization and cooperation of production acquires special importance for their accelerated and intensive economic growth. There exist wide possibilities for this within the CMEA. In the mutual trade of the CMEA countries products turned out under production specialization and cooperation account for 25-30 per cent which corresponds to the level of such trade among developed capitalist countries.

However, this cooperation does not yet meet the existing possibilities and requirements. The degree of specialization remains low in parts, components and technology, accounting for 10-15 per cent of the total volume of trade in specialized machines and equipments. Within this, the share of products which are novel and advanced in an economic and technological sense is low, remaining below 10-12 per cent of the whole range of specialized products. Not all agreements on specialization and cooperation lead to the creation of new production capacities or to a technological reconstruction of the already existing ones.

At present, the CMEA countries devote more and more attention to subordinating their bilateral and multilateral cooperation, within this the joint construction of largescale production units, specialization and cooperation in production and to the scientific and technological integration, to the solution of central scientific-technological problems. This also permits increases in the efficiency and the volume of external economic relations with third countries.

The most promising fields of such cooperation of CMEA countries, aimed at the same time at the expansion of exports to markets in third countries could be: ferrous and non ferrous metallurgical products, mining equipments, equipments for atomic power stations, transport equipments and agricultural machines, production of hydraulic and pneumatic equipments, production of irrigation and land-improvement facilities, a number of branches of the machine-tool industry. Soviet—Hungarian efforts could be directed, for example, at joint actions in the aluminium industry, in several branches of electrical engineering and electronics, in the construction of turbines and generators, and transport equipments.

It goes without saying that for the solution of the complex and difficult tasks of expanding specialization and cooperation within the CMEA it is required to further develop the domestic and international mechanism for realizing specialization and cooperation. In particular it is necessary to improve incentives of socialist enterprises for external economic activity, to increase their interest and responsibility in, and to improve the procedures of concluding agreements on, specialization and cooperation, etc.

Cooperation with partners from developed capitalist countries can turn into an important additional factor contributing to the solution of a number of economic tasks in the CMEA countries, and to raising the level of specialization and cooperation. The long-term and self-financing character of cooperation trade with the West make it profitable not only in view of the balance of payments (the cooperation trade with the West shows an active balance in Hungary, Poland, Czechoslovakia), but also in that it

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stimulates the expansion of trade by individual commodity groups, first of all in machines and equipments (they account for about 20 per cent of the Polish, 25 per cent of the Hungarian and for more than 10 per cent of the Czechoslovak exports to the West).

At the same time, cooperation with the West has a number of adverse features: this is first of all the growing technical and technological dependence of a number of important branches of industry, appearance of a double standard of quality in the economic exchange in different geographical directions, creation of stocks of equipments with different characteristics, parallel development of some productions. Inadequate coordination among socialist countries of directions of cooperative collaboration with the West often leads to incompatibility with the conditions and requirements of long-term development and to conflicts with measures taken for the extension of specialization and cooperation within the CMEA. However, experience indicates that cooperative collaboration with the capitalist countries brings on the whole the necessary results only in cases when it is carried out in a purposeful and close coordination with the tasks of expanding socialist economic integration.

Trade of the CMEA countries in patents and licences with the West may have a great influence upon the prospects of collaboration. They permit an accelerated access to advanced technology, and ensure greater economic effect with significant economy of time. According to certain calculations, the economic efficiency of production based on licences exceeds the costs of purchasing these licences 12-15 times in Hungary, 10-12 times in Czechoslovakia and about 10 times in the USSR. However, the exchange of technology in the form of licences has not yet become an object of jointly planned and coordinated activity in the CMEA countries and this leads to not always well founded orientation towards Western technology to the detriment of the expansion of scientific-technological and production collaboration among the CMEA countries. Slow application of the patented and purchased novelties remains also a serious shortcoming.

Nevertheless, the great scientific and technological potential of the CMEA countries (the Soviet Union alone possesses 20 per cent of the world's stock of patents) in combination with the experimental basis of the West and also its experience of introducing new technology into production might become one of the preconditions for business collaboration on a cooperative basis.

In the interests of speeding up scientific and technological progress it is important to apply technological and technical novelties purchased in the West so as to ensure not only their immediate introduction into production but also their improvement and perfection relying on already existing national scientific research and production capacities, or those to be created. The expected economic efficiency including leading positions in the world economy can be achieved only in this case (as it has actually occurred in the GDR in organizing crude oil processing with Japanese firms, in Poland in the production of tractors in cooperation with American corporations, in the USSR in the elaboration and production of NC machine-tools in cooperation with a West-German firm). It seems that is our joint scientific and technical potential that could become in the 1980s a basis

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for a more active penetration of the CMEA countries into new markets which are distinguished by rather hard conditions of competition.

4. Trade and economic relations with the developing countries are on the whole increasing at high rates and these countries have turned into big trade partners of the CMEA countries (developing countries account for more than 10 per cent of the trade volume of these countries.) At the same time, the CMEA countries are far from fully utilizing the great potential advantages of this trade flow. In the 1970s the share of CMEA countries in the foreign trade turnover of the developing countries declined, particularly in the trade in engineering products. A serious discrepancy has emerged between the attained level of political relations and the volume of economic cooperation, which constitutes the material basis of these relations and which is the means for making these relations steady and stable. The relatively low share of mutual trade in the total trade of both country groups restrains a wider application of large-scale effective forms of international cooperation in the solution of national economic problems of the partners.

In a perspective of 10-15 years it seems reasonable to concentrate efforts at the solution of the following task:

a) organization through joint efforts of the CMEA countries of large-scale imports from the developing countries of primary energy, first of all crude oil, certain kinds of raw materials and tropical foodstuffs;

b) a fuller use of the large engineering potential of the CMEA countries for expansion of exports of machinery and equipment to the developing countries (at present these deliveries account for about 30 per cent of exports to these countries and cover only 4-5 per cent of their import demant);

c) taking measures to reorientate part of East-West trade flows to the developing countries;

d) solution of institutional problems hindering the development of relations with the developing countries in individual CMEA countries and also their joint actions.

For example, the USSR and Hungary could cooperate on a larger scale in rendering help to the elaboration of national programs for the development of productive forces in developing countries and also by participating in their implementation. Such united efforts and pooling of resources of two or more CMEA countries for the realization of large economic projects in third countries are considered reasonable since in a number of cases one country alone cannot come forward for lack of production capacities or a certain kind of production.

Here we have in mind cooperation in carrying out prospecting for minerals, in developing the extraction and processing of certain raw materials, in the construction of industrial and other projects, etc. Such kind of activity will serve the socio-economic progress of people liberated from the colonial yoke on the one hand, and it could be used by the CMEA countries for several different purposes on the orher for expansion of procurement resources of certain scarce raw materials and other products (maybe on a compensatory basis), for increasing profitable imports of labour-consuming products (for example cotton and leather products) etc.

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There are definite possibilities for a joint participation of Soviet and Hungarian organizations in the development of the scientific and technological infrastructure in these countries, for example in a comprehensive construction of educational and medical establishments, experimental laboratories, telephone networks, etc. (by deliveries of necessary equipments on the basis of division of labour).

The interest in raising the efficiency of investments and in a fuller satisfaction of demand for energy in the CMEA countries make it reasonable to increase energy imports from outside the CMEA region, first of all from the developing countries. By the early 1990s the demand of CMEA countries for example for imported oil may increase by about 3-4.5 and for aluminium raw materials by 1.7-1.9 times, as compared with the present level. The CMEA countries will need significant quantities of phosphate, copper and iron ore imports. Payments for these imports are comparable with the export volume of CMEA countries to the developing countries in the mid-1970s.

The import of large volumes of fuels and raw materials from outside the CMEA can be ensured if existing forms and methods of cooperation, its financing and its materialtechnological supply are complemented by *new* ones. At the same time, it should be borne in mind that under the conditions of the more and more pressing scarcity of natural resources in a number of cases price level is no longer a fundamental factor in deciding on the procurement of raw materials. When a large volume of raw materials is imported, it is more important to ensure access to mineral resources on a long-term basis, where the decision is influenced not only by the existing prices and considerations of current advantages, but by a strive for guarantees of receiving fuels and raw materials in the required quantities over a long period of time.

Scarcity of investment and export resources in the socialist countries is also considered as the main obstacle to a further expansion of imports of raw materials from the developing countries. This is true, indeed. However, investments in the expansion of export-oriented production to pay for the rising volume of imported fuels and raw materials should not be regarded as diversion of resources from the primary tasks of CMEA countries, but as an alternative to domestic investments into one or another branch. In other words we have here a case of redistributing existing investment funds between extractive and manufacturing industries in order to raise their efficiency.

The "incorporation" of these measures into the long-term special-purpose program for cooperation (LSPC) "fuels and raw materials" (maybe in the form of a special subprogram) can create suitable organizational frameworks for their realization. In this field an important role will be assigned to contacts and cooperation between the planning organs of the socialist and developing countries and also to the activity of the existing and the possible future international organizations of the socialist countries.

The expansion of exports of machines, equipments and technological know-how from CMEA countries to the markets of the developing countries and a simultaneous increase of the share of this commodity group in total exports up to 40–50 per cent can be attained only if the newly created productive engineering capacities are partially oriented to the markets of these countries.

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In this connection a definite change in the function of economic and technical assistance extended by CMEA countries to the developing countries is needed. It has to serve, to a greater extent than today, as an instrument for establishing a lasting division of labour between these two groups of countries. Therefore, it is necessary that we pay attention to assisting our partners in the construction of enterprises oriented to the markets of the CMEA countries and also to applying such new forms of cooperation as participation in the construction of not only individual enterprises, but whole territorial and production complexes, in long-term industrial cooperation and compensatory transactions, in the expansion of network of joint production and trade ventures, in the realization of multilateral projects relying on the cooperation of interested CMEA countries, in tripartite cooperation etc.

5. It is absolutely obvious that one cannot speak of development of cooperation between the CMEA countries (within this between the USSR and Hungary) on the markets of third countries without taking into account that at present multilateral LSPCs are being elaborated and will be carried out in the key branches of production and, at the same time, also bilateral long-term development programs for specialization and cooperation between the major branches of the economies of our countries are in progress. It is highly important that our work for the development of cooperation with third countries should contribute to the successful realization of LSPCs and the progress in implementing these programs in its turn should increase the efficiency of our relations with the developed capitalist and developing countries.

In his message to the participants of the 33rd Session of CMEA L. Brezhnev underlined: "At present our main task is apparently to expand long-term programs into a system of concrete agreements, turn the following two five-year plans into a period of intensive production and sicentific-technological cooperation."

In the framework of multilateral and bilateral programs a twofold task should be solved: simultaneously with raising the efficiency of productive forces in our countries it is necessary to pay special attention to organizing the production of such products which are at present scarce and are bought from capitalist countries. At the same time, relying on specialization and cooperation, we have to develop the production of definite kinds of products to satisfy not only the requirements of the national economies of our countries, but also to significantly expand the fund of exportable products to be sold at the markets of third countries. Maybe, it would be expedient to single out questions of cooperation with non-socialist countries as separate subprograms in the realization of LSPCs and of the bilateral long-term programs of specialization and cooperation between socialist countries.
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#### ИНТЕГРАЦИОННОЕ СОТРУДНИЧЕСТВО И ПРОБЛЕМЫ ДЕЛОВЫХ СВЯЗЕЙ С РАЗВИТЫМИ КАПИТАЛИСТИЧЕСКИМИ И РАЗВИВАЮЩИМИСЯ СТРАНАМИ О. БОГОМОЛОВ

Политика мирного сосуществования, курс на разрядку международной напряженности неразрывно связаны с расширением взаимовыгодного равноправного сотрудничества государств с различным общественным строем. Активизация торговых, производственных и научнотехнических связей с развитыми капиталистическими и развивающимися государствами сыграла в последнее десятилетие в целом несомненно положительную роль в экономическом прогрессе социалистических стран.

Вместе с тем, начиная примерно с середины 70-х годов, в мировом хозяйстве обозначились новые тенденции, имеющие далеко идущие последствия и неизбежно затрагивающие интересы стран СЭВ. В области отношений с государствами иного социального строя в последние годы со всей очевидностью обнажились такие общие проблемы стран СЭВ, как слабость их традиционной экспортной базы и недостаточная конкурентоспособность их экспорта готовой продукции, трудности формирования необходимых экспортных ресурсов в условиях сверхнапряженности внутрихозяйственных систем снабжения, недостаточно рациональная структура импорта, хроническая несбалансированность торговли с Западом, чрезмерный рост задолженности западным партнерам.

Все это вместе взятое заставляет достаточно осторожно оценивать перспективы сотрудничества стран СЭВ с государствами иного социального строя на перспективу 80 -х годов. Разумеется, речь не идет и не может идти (по причинам прежде всего объективного порядка) о курсе на национальную или коллективную автаркию. Использование выгод и преимуществ широкого международного разделения труда стало важным фактором интенсификации народного хозяйства всех стран СЭВ, и в 80-е годы следует, видимо, ожидать не сокращения, а расширения масштабов экономического сотрудничества государств с различным общественным строем. Вместе с тем представляется очевидной необходимость дальнейшего укрепления материальных предпосылок участия стран СЭВ во всемирном разделении труда, рационализация их связей с государствами иного социального строя, объединения их усилий для решения общих задач и нейтрализации негативных тенденций, проявившихся в последние годы.



Acta Oeconomica, Vol. 23 (3-4), pp. 315-322 (1979)

#### N. SHMELEV

# NEW TENDENCIES IN THE WORLD ECONOMY AND THEIR INFLUENCE ON THE ECONOMIC INTERESTS OF CMEA COUNTRIES\*

The 1970s witnessed a rapid expansion of economic connections of CMEA countries with countries with different social systems. Simultaneously with a positive role of this process, however, there have emerged adverse tendencies which manifest themselves in a chronic imbalance of East-West trade and in an increasing indebtedness of CMEA countries. The way out of this situation should not be a course towards autarky (national or collective) but rationalization and a more effective utilization of cooperation possibilities.

The policy of peaceful co-existence and the easing of tensions has led to a noticeable weakening of the international positions of imperialism, to a growing authority and influence of the socialist world system, to a significant improvement in the external conditions of economic and social progress in the socialist countries. In the 1970s the socialist countries succeeded in overcoming the relative economic isolation forced upon them in the period of the "cold war", in joining their national economies more closely in the international trade, in ensuring for themselves a wider access to economic and technological alternatives provided by the world market.

The favourable influence of economic cooperation on equal terms of countries with different social systems on the improvement of the international political climate is obvious. As it was stressed by L. I. Brezhnev such cooperation is "some kind of joint investment of East and West in a strongly desired and mutually beneficial cause-maintenance and strengthening of international peace".

Nowadays, economic cooperation of countries with different social systems plays a noticeable positive role in the fulfilment of national economic plans in CMEA countries. Imports from non-socialist countries have become an appreciable factor in the modernization of leading branches of industry; in the implementation of large investment programs, in the increase of budgetary revenues (taxes etc.), in the regulation of the population's effective demand, and in the solution of certain food problems; in the strengthening of the material basis of socialist economic integration and in the development of specialization and cooperation in the frameworks of CMEA. Apart from ensuring the bulk of foreign exchange earnings to pay for the necessary imports, expanding exports to the highly demanding world markets are becoming more and more an independent factor in the economic growth of the socialist countries contributing to the rise of the technolog-

\*Based on a paper submitted to the Soviet-Hungarian economic round-table conference held in Budapest, November 1979.

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ical level of production and to the improvement in the qualitative indicators of performance not only in enterprise working directly for exports but also within a wide scope of related branches. Long-term credits provided on a bilateral basis as well as at the international money markets have become an important element in the reproduction process of the CMEA countries.

At the same time expansion of cooperation with countries having different social systems has caused a number of serious adverse phenomena in the economic growth of individual CMEA countries and the socialist system as a whole. Efforts of imperialism to attain their war-policy and ideological aims through economic pressure in the relationship with the socialist countries have intensified and so have their attempts at using differentiated external economic policies to undermine the unity and solidarity of these countries. The influence is being felt of certain changes in the policy and trade systems of the USA, the EEC and Japan on the economic interests of CMEA countries. More and more worries are caused by such phenomena as increasing technical and technologial dependence on the West in a number of industrial branches in CMEA countries; an increased role of Western shipments in the solution of a number of raw material and food problems in countries of the socialist system; "import of inflation" and associated economic and social difficulties in the individual socialist countries; chronic imbalance of trade with the majority of Western partners; growing indebtedness to the West, surpassing for the CMEA as a whole the total of 50 thousand million dollars.

In certain fields the present character of economic relations of countries with different social systems conflicts with certain interests of the socialist integration: growing competition of the West at CMEA markets in respect of both exports and imports; forced reorientation of a number of very scarce commodities from CMEA markets to other world markets; emergence of the notion of "hard" and "soft" commodities, double quality standard of products and also a growing volume of trade for dollars among CMEA countries; often a deepening isolation instead of its elimination and parallel production of socialist countries in establishing cooperative connections, in the purchase of licenses and technology, in selling products at the markets of third countries.

It is also obvious that, beginning with the mid-70s, objective conditions for the cooperation of countries with different social systems began to change: new trends emerged in the world economy which have deep-going consequences and which inevitably affect the vital interests of CMEA countries. Of these it seems necessary to single out the following ones:

- a general decline in economic growth in the West, fundamental crisis phenomena in the economies of the capitalist world, deterioration of sales conditions for the commodities of socialist countries, a definite weakening of interests of our Western partners in cooperation with CMEA countries, in particular, in connection with the increased real and potential role of new and rapidly expanding markets in world economic relations;

- aggravation of the energy crisis in the world economy, a factual 12-fold and, on the free market, a 20-fold increase in oil prices, the emergence, in 1979, of a 4-5 per

cent absolute shortage in oil as compared with current consumption and a demand for building up reserves; high probability of not only the persistence but even aggravation of the situation on the markets of primary energy at least up to the end of 1980s;

- inflation, a steep rise in the costs of credits, instability of the whole international monetary system which has become an independent factor in the deterioration of general economic conditions.

Taken all this together permits one to make a rather cautious evaluation of the perspectives of economic relations of CMEA countries with capitalist ones over the period of the 1980's. One does not and cannot speak (first of all for objective reasons) of a course towards national or collective autarky. However, it would appear to be irrealistic to expect in the years to come the same rapid expansion of these connections characteristic for the first half of the 1970s. Nowadays the task of rationalization, and a more effective utilization of the already established possibilities of cooperation appears to come to the fore, together with working along those lines where possibilities have not yet been fully utilized.

The need for a fuller utilization of existing possibilities inherent in international cooperation and for neutralization of adverse tendencies emerging in recent years makes it rather timely to further and thoroughly elaborate the complexity of problems connected with the active participation of socialist countries in the system of world-wide division of labour, the coordination and connection of processes of socialist integration with their relations with countries in different geographical regions. United efforts to solve these problems in the framework of socialist integration correspond to the national interests of all CMEA countries, since none of these countries alone could cope with them without seriously disturbing economic equilibrium, slowing down the rates of economic growth and postponing the solution of urgent social problems. Expansion of multilateral actions represents an alternative preferred to measures of "shock-work" character, including the extension of external help, urgent credits in foreign exchange, reorientation of already agreed deliveries of commodities to other markets, etc....

An analysis of established tendencies shows that CMEA countries have the necessary preconditions for a definite expansion of cooperation with the non-socialist countries, for improving its forms and methods, for increasing its efficiency. Problems emerging in recent years could be overcome primarily not by curtailing, on the contrary, by expanding and rationalizing economic relations with countries having different social systems. Exactly such approach to the problems of international cooperation could apparently become a basis for the future elaboration of a long-term conception of relations with countries having different social systems, which corresponds to the interest of every CMEA country.

A most important element of long-term strategy in this field is going to be a complexity of national and collective measures for the expansion of export reserves of CMEA countries, improvement of the structure, increase in the quality and technological level of their exports, their promotion on markets which are notable for a rather tough competition. The most desirable solution of the problem of export resources is expansion

of the exporting sectors in engineering and in other branches of manufacturing, i.e. along a major course towards the growth of international trade. Considering the overall industrial and scientific-technological potential of CMEA countries it is just this sector that could become in the long run a basis for further participation of the fraternal countries in the world-wide economic exchange.

Significant reserves for the increase of machinery and equipment exports are to be found in industrial cooperation and other forms of production collaboration of CMEA countries with firms of third countries. The highest increase in the share of machines and equipment in exports to the West was achieved in the 1970s by those countries – for example Poland and Hungary – which develop cooperative relations rather rapidly. Another realistic course is export specialization and united efforts by fraternal countries through bilateral and multilateral cooperation in the frameworks of CMEA. Joint actions can ensure the growth of exports of finished products and its diversification with the already existing capacities as well as by coordinated joint investments. There are already successful examples of such kind – Bulgarian electric trolley-cars, Hungarian buses, Polish ships, Soviet passenger cars and Czechoslovakian lorries, etc. . . . Atomic engineering, production of NC machine-tools, vehicles, equipment for thermal and hydro-electric power plants, irrigation stations, road-building machines, mining equipment are also promising.

The most promising direction for the export of machines and equipment from CMEA countries are the developing countries where conditions of competition are relatively more favourable than in the West. Orientation of additional production capacities to be established in CMEA countries right towards the markets of developing countries, and also the development of new forms of cooperation, such as participation of not individual enterprises but whole territorial production complexes, long-term industrial cooperation and compensatory deals, expansion of the network of joint production and sales associations, implementation of multilateral projects on the basis of cooperation of interested CMEA countries, trilateral cooperation with Western firms etc. could significantly expand and strengthen the economic positions of socialist countries in these regions of the world already in the relatively near future.

Means necessary for the expansion of the export sector in manufacturing industry oriented to the markets of non-socialist countries could be found by redistributing investments among branches, curtailing irrational and forced imports, an active utilization of the scientific-technological potential of socialist countries, development of foreign tourism and exports of services drawing financial means from abroad.

Restructuring the exports of CMEA countries is a prolonged process and no doubt its completion is beyond the 1980s. The solution of this problem demands us, however, to follow immediately a corresponding policy, right from today. The most realistic contribution to solving the task structural modernization, to increasing the volume and raising the efficiency of exports from CMEA countries in the decades to come, could be a more active utilization of possibilities inherent in traditional exports, in particular in the present situation at the markets of energy resources and raw materials.

Expansion of resources for exports could be ensured through several measures; increase in extraction, raising the degree of processing and economies in domestic consumption of exporting countries; rationalization of the use of energy resources in the importing CMEA countries where at present, for example, according to the estimates of Hungarian economists, the consumption of fuels and even of electric energy, per unit of national income, is 1.5–2 times higher than in Western Europe. Measures should be taken to develop national energy and raw material resources and to decrease the per unit material consumption of production in Eastern-European countries of the CMEA by way of technological substitution and through restructuring their production potential in order to give priority to the development of advanced, less energy and raw material consuming branches. There is a possibility of large joint external economic manouvres in the frameworks of CMEA with the aim of drawing on the large-scale energy and raw material resources of developing countries.

Although the Soviet Union continues to increase deliveries of primary energy to CMEA countries, in view of objective conditions in the 1980s she cannot satisfy a definite part of their expanding demand for these commodities. The increased interestedness of CMEA countries in Soviet deliveries is explained, among other reasons, also by their relatively weak export basis and the insufficient competitiveness of their exports to other world markets. However, at the present rates of investment the expected growth in the industrial potential of CMEA countries in the 1980s – an almost two-fold increase – creates the necessary objective conditions not only for large-scale structural transformations in their fuel and raw material consuming industries, but also for the development of a competitive export sector, one of the main tasks of which will be to solve the fuel and raw material problem.

Considerable possibilities for CMEA countries to bring their balances of trade and payments with the West into equilibrium are to be found in rationalization of the present structure of imports and in increasing the efficiency of their use. First, according to certain estimates, no less than 15 per cent of imports of the fraternal countries belong to the category of forced imports: these are first of all imports of such machines which are produced at acceptable technological standards in CMEA countries. However, due to the overstrained domestic plans and an insufficient consideration of mutual requirements, orders for these products are chronically left unsatisfied. Second, in some years no less than 15–20 per cent of total imports from the Western countries are comprised of grain, ferrous metals and pipes. Third, in CMEA countries reserves of uninstalled imported equipment are increasing which naturally do not yield export returns: here one can speak also about billions of foreign exchange roubles.

In the longer perspective, considering that energy and raw material problems have become complicated within the CMEA, imports of these commodities from the developing countries will inevitably assume increasing importance. The need for large quantities of imports of energy and raw materials from these countries dictates in its turn the necessity of expanding economic and technological help to developing countries both on a bilateral and, in particular, on a multilateral basis. The basic guideline in the cooperation projects

with developing countries should be the possibilities of satisfying certain long-term requirements of CMEA countries through steady deliveries of enterprises to be established with their help. Considering the recent tendencies in the world economy it is important to ensure in due time the expansion of collaboration in the exploitation of rich and easily accessible resources, which may bring noticeable advantages to both sides. It seems that the expansion of joint, multilateral actions of CMEA countries could bring extremely significant results precisely in these fields.

Such an approach to collaboration is, however, associated with the necessity to eliminate the traditionally established view according to which credits granted to developing countries are but losses, substractions from the national income of the socialist countries. When bulding projects the products of which will be exported to CMEA countries, these credits may be considered, to a certain extent, as alternatives to domestic investments.

No doubt, CMEA countries need a more effective regulation of their indebtedness. In this connection the more rational utilization of traditional and the attraction of new sources of financing acquires importance. It is doubtful whether direct foreign investments have any serious perspective in all the CMEA countries, without exception. It seems that the following sources of financing deserve now special attention: loans on intergovernmental basis, granted as a rule on more favourable conditions than on the foreign exchange markets, issue of state bonds; a stronger attraction, in some form or other, of the free financial resources of oil-producing countries; various methods of converting credits in non-convertible currencies into convertible ones, intensification of CMEA cooperation in the monetary and financial spheres. The new world economic tendencies make it reasonable to further and elaborate problems of connections of CMEA countries with the monetary and financial system of the world, having in mind here a strengthening of the collective positions of fraternal countries in this important field.

The task of eliminating adverse tendencies in the economic relationships with the non-socialist countries raises serious claims on the internal economic mechanism of CMEA countries and also on that of their mutual cooperation. No doubt such questions as the following ones need a collective elaboration: the ways of further stimulating the external economic activities of socialist enterprises, increasing their motivation and responsibility, creation of the necessary material reserves, further progress on the way to the transition from currency conversion coefficients to a uniform exchange rate and, on this basis, expansion of possibilities of multilateral settlements both outside, and within the CMEA. Adjustment to the world standards of the price levels of energy raw material resources and machines, and also of conditions of mutual credits in order to minimize certain recent anti-preferential phenomena at the CMEA market which stimulate irrational orientation to the West.

The most important direction of multilaterally coordinated actions of CMEA countries in their relations with the non-socialist world, in their united efforts at the solution of common problems of export expansion and import rationalization could become a detailed inclusion of the possibilities of their economic relations outside CMEA

in the long-term special-purpose program of cooperation (LSPC) and the conclusion on their basis of agreements. Also the development of other forms of joint planning and the activity of their international economic organizations might contribute.

It seems that in the future the CMEA could utilize the recent antiprotectionist tendencies in the industrialized capitalist world and achieve a further weakening of discriminatory limitations in the trade policies of USA and EEC with greater efficiency. There are also definitely unutilized possibilities for strengthening collective actions of CMEA countries in this field, in particular negotiations within the frameworks of GATT and negotiations with the EEC. A consistent and firm line of CMEA countries towards a collective solution of the basic problems of principle in the relationship between the two European integrations, as well as a search for mutually acceptable compensations in trade conditions in the 1980s could probably weaken the trade barriers of EEC directed against mutual collaboration in other fields to a definite extent.

Socialist integration is the main line of participation of CMEA countries in the system of world-wide division of labour. The progress of integration is, at the same time, an expansion of both national and collective possibilities for utilizing benefits and advantages of an active economic exchange between countries with different social systems. A common and multilateral approach to the solution of complex problems of collaboration under the present conditions is, no doubt, the most important objective condition for raising the efficiency of economic connections of CMEA countries also in this geographic direction.

#### НОВЫЕ МИРОХОЗЯЙСТВЕННЫЕ ТЕНДЕНЦИИ И ИХ ВЛИЯНИЕ НА ЭКОНОМИЧЕСКИЕ ИНТЕРЕСЫ СТРАН СЭВ Н. ШМЕЛЕВ

Экономическое сотрудничество с государствами иного социального строя играет заметную положительную роль в выполнении народохозяйственных планов стран СЭВ. Импорт из несоциалистических государств стал важным фактором модернизации ведущих отраслей промышленности; осуществления крупных инвестиционных программ; регулирования платежеспособного спроса населения и решения некоторых продовольственных проблем; укрепления материальных основ социалистической экономической интеграции и развития специализации и кооперирования в рамках СЭВ. Расширяющийся экспорт на требовательные мировые рынки, помимо обеспечения основной части валютных поступлений для оплаты необходимого импорта, все в большей мере становится самостоятельным фактором экономического развития социалистических стран, содействуя росту технического уровня производства и повышению качественных показателей работы не только предприятий, непосредственно работающих на экспорт, но и широкого круга сопряженных отраслей. Важным элементом процесса воспроизводства в странах СЭВ стали также долгосрочные кредиты, привлекаемые как на двусторонней основе, так и путем выхода на международные финансовые рынки. Вместе с тем расширение сотрудничества с государствами иного общественного строя вызвало ряд серьезных негативных явлений в экономическом развитии отдельных стран СЭВ и всего социалистического содружества в целом. Усилились попытки империализма путем экономического давления добиться своих военно-политических и идеологических целей в отношениях с социалистическими странами, его стремления использовать дифференцированную внешнеэкономическую политику для подрыва их единства и сплоченности.

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Анализ сложившихся тенденций показывает, что страны СЭВ располагают необходимыми предпосылками для определенного расширения сотрудничества с несоциалистическими государствами, совершенствования его форм и методов, повышения эффективности. Возникшие в последние годы проблемы могут быть преодолены преимущественно не путем свертывания, а, наоборот, путем расширения и рационализации экономических связей с государствами иного общественного строя. Такой подход к проблемам международного сотрудничества мог бы стать в дальнейшем основой разработки совместной долгосрочной концепции связей с государствами иного общественного строя, отвечающей интересам всех участников СЭВ.

Важнейшим элементом долгосрочной стратегии в этой области становится комплекс национальных и коллективных мер по наращиванию экспортных ресурсов стран СЭВ, улучшению структуры, повышению качества и технического уровня их экспорта, продвижению его на рынки, отличающиеся весьма жесткими условиями конкуренции. Наиболее предпочтительное решение проблемы экспортных резурсов заключается в расширении экспортного сектора в машиностроении и других отраслях обрабатывающей промышленности, т. е. по линии, которая составляет магистральное направление развития современной международной торговли. Значительные возможности выравнивания торгового и платежного баланса стран СЭВ в отношениях с Западом заключаются в рационализации нынешней структуры импорта и повышения эффективности его использования. В перспективе, учитывая осложнение топливо-сырьевой проблемы в рамках СЭВ, все большее значение неизбежно будет приобретать импорт этих видов продукции из развивающихся стран. Обеспечение значительных масштабов такого импорта в свою очередь диктует необходимость расширения экономического и технического содействия развивающимся государствам как на двусторонней, так и в особенности на многосторонней основе.

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Acta Oeconomica, Vol. 23 (3-4), pp. 323-338 (1979)

#### A. KÖVES

# HUNGARIAN AND SOVIET FOREIGN TRADE WITH DEVELOPED CAPITALIST COUNTRIES: COMMON AND DIFFERENT PROBLEMS\*

Although concerns of CMEA countries in East–West trade have common reasons, the diverse situation of individual countries might eventually require also different solutions in their economic relations with the West. The author proves this thesis by analyzing the commodity pattern of Hungarian and Soviet exports to the developed capitalist countries. The increase of raw material exports dominating in the case of the Soviet Union depends, first of all on the concentration of investments in the exporting branches. However, Hungarian experience indicates that increasing the exports of manufactured goods cannot be successful if promoted merely through the concentration of investment resources on some selected development objectives – even if concentration takes place on an international scale. The establishment of a dynamical foreign economic equilibrium is much more a function of developing an economic mechanism promoting adaptation to the world economy.

The theoretical or practical expert dealing with general laws and national particularities of the development of socialist countries can rely on ample material by studying the trade of individual CMEA countries with developed capitalist ones. The economist will face difficult problems if he tries to analyze the facts of this trade. It is difficult to decide for which statement can more evidence be found: whether European CMEA countries – among them also the USSR and Hungary – are faced with very similar problems in present-day trade with developed capitalist countries, so to say, they all are in the same situation, or, on the contrary, their problems arise in different fields with very deviating character and in different forms, and thus also their solution methods must necessarily differ.

# CMEA countries and world-wide division of labour

In earlier years in Hungary first of all the differences have been emphasized. It was pointed out that the situation of the USSR in the trade with Western countries was basically different i.e. much easier than that of other European CMEA countries. This opinion was firstly based on the fact that the Soviet economy was less foreign trade intensive than those of the latter (a much smaller part of industrial and agricultural

\*Paper presented at the conference of Hungarian and Soviet economists on 26th November, 1979 under the title: "Possibilities of cooperation and coordinated activity between socialist countries (Hungary and the USSR) in economic cooperations with third countries"

production was exported and a smaller part of domestic consumption resulted from imports).

Without taking the different foreign trade intensities of smaller and bigger countries into consideration any comparison between Hungarian and Soviet foreign trade would be deprived of economic content. Yet, these differences must not be considered to have absolute validity, either. A bigger country can participate in the international division of labour under different conditions, perhaps in other fields and with other methods than a smaller one, but it is beyond doubt that it also needs this participation and has very important interests in enjoying the advantages of participation in a world-wide division of labour and *vice-versa*, it is also very disadvantageously affected by possible limits to participation.

In a smaller country which is sensitive to foreign trade, the entirety of economic life and all its partial fields are inseparable from foreign trade. All decisions and resolutions on economic policy or the economic mechanism have direct and important consequences for foreign trade (or *vice-versa*: the existence of foreign trade and the close links with the international economy largely determine *every* decision on domestic economy). In bigger countries the situation is different: foreign economic processes affect only a smaller part of the economy directly. But this fundamental difference does not exclude that foreign trade may have a very important, often indispensable part precisely in the solution of most important problems and in the realization of primary goals most emphasized by economic policy also in a big country, despite a relatively low foreign trade intensity.

If, for example, about 60 per cent of investments into machinery (in 1978 57.4 per cent) originate from imports (as is the case in Hungary [1],) then no investment decision can be made that would not affect also foreign trade in some respects. If the share of imports in machinery investments is only 15 per cent [2] – as in the USSR – then there is no such close connection between investment policy and foreign trade. But machinery imports from developed capitalist countries can very considerably contribute to setting the advanced technological standards of the most up-to-date civilian branches, to modernizing the economy in general, to improving the production structure and, last but not least, to the boosting of exports even in this case.

In the present stage of the economic development of CMEA countries this contribution can be more important than earlier. Namely, in the past, when economic growth was mostly based on sources like the increase in employment and in the volume of investments, the requirement to further technological development through the increase of machinery imports — also from the West — emerged less sharply. However, when possibilities of extensive development are exhausted and economic development depends more and more on the successful improvement of quality, efficiency and productivity, it will become more and more important that technological development, and the raising of efficiency should be promoted also through the import of up-to-date technology, beyond ensuring the domestic economic conditions of primary importance.

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At present CMEA countries – with very few exceptions – are importing from the West only such products which are not produced in these countries at all, or if so then not in adequate quantity, quality or assortment or, even though they are produced, they still cannot be obtained when required because of the inadequate functioning of the domestic or the international cooperation mechanisms. Owing to accumulated disequilibria even such imports are felt as a serious burden. However, it cannot be left out of account even in this situation that accelerated structural changes in industrial production and international trade as well as world-wide specialization processes of production clearly indicate that endeavours to produce in one country (or even in a group of countries) all necessary products that can be produced there, or whose production can be organized through great efforts sooner or later, unavoidably lead to low efficiency (while it will be more than doubtful whether this contributes to the reduction of imports).

It should be particularly subject to deliberation that precisely the above way of dealing with import when from countries outside the CMEA only such goods are imported which cannot be purchased in the framework of the community – leads to the serious dilemma of the present economic situation. Namely, it is clear from this approach to imports that – despite proper and justified endeavours at saving and rationalization – the possibilities of CMEA countries to prevent the increase of debts towards the West (or to moderate the growth rate of indebtedness) by purchasing goods previously bought from capitalist countries from their CMEA partners or by producing them domestically can only be limited. Such limits to the replaceability of imports from the West simultaneously indicate that a lasting and considerable restriction of imports would unfavourably affect the entire economic life of the CMEA countries: it would contribute to a further slowing down of economic growth, and to problems of technological development; it would increase difficulties of supply and impede also the realization of cooperation plans within the CMEA.

However, the changes in the world economy mentioned in the foregoing draw attention also to the fact that production for the world market taken in the widest sense may result in considerable advantages for any country, independently of its size. Buying abroad goods which cannot at all or only too expensively be produced domestically will earn the biggest profits for a national economy if it is accompanied by the export of goods that can be produced with significant advantages in that national economy. Only if we succeed in developing the structure of our export in this way, can the situation change when it seems that "we can enjoy only the disadvantages" of increased participation in the international division of labour and "... participation in it can mean for us basically a necessity and increased defencelessness"[3]. It may then turn out that in reality the international division of labour is a source of enormous advantages and a possibility of extraordinary importance which considerably contributes to economic development and makes growth smoother and less expensive.

# Livelier trade with the West: some facts, reasons and consequences

The fact that increased participation in the world-wide division of labour is an objectively necessary process for each country is supported also by an examination of facts and trends of Hungarian and Soviet foreign trade with the developed capitalist countries. When the period of the cold war was over, the share of developed capitalist countries in Hungarian and Soviet foreign trade started to increase already in the 1960s. According to official statistical data this share was a little higher in Hungarian foreign trade than in the Soviet one. In 1960 24.7 per cent of total Hungarian imports and 19.8 per cent of Soviet imports came from Western countries. By 1970 a greater difference could be experienced in exports: 28 per cent of Hungarian exports, while only 18.7 per cent of Soviet exports were realized in developed capitalist countries. Namely, while in Hungarian exports the share of developed capitalist countries was continuously increasing in the 1960s, such increase in Soviet exports was only minimal.

However, more than one third of the total trade of CMEA countries with the West fell to the USSR already in the 1960s (in 1965 32 per cent of imports and 40 per cent of exports, while in 1970 37 per cent of imports and 41 per cent of exports). Also in the case of the USSR import was the dynamic element of turnover. It is thus understandable that, except for a single year (1967), the balance of Soviet foreign trade with developed capitalist countries was not active, either. Despite considerable grain imports in the mid-1960s, then the boom of machinery imports connected with the building of the Volga Motor Vehicle Plant later on, it still seemed that the import needs of the USSR were less pressing than those of smaller CMEA countries and that Soviet exports to the West could more easily be increased – in case of necessity – than those of smaller CMEA countries. Its considerable gold reserves also provided a guaranty against tensions. Therefore, the view was general in Hungary that the development of trade with the West causes much less concern for the Soviet economic policy than for Hungary.

The situation has in many respects changed in the 1970s. Development of economic relations between the USSR and the developed capitalist countries has become a key-issue of East–West trade. In each smaller CMEA country – thus also in Hungary – great importance has been attributed to the fact that in the USSR a powerful intensification of relations was decided in 1972–1973, parallel with the progress of the process of international détente. Even if it soon turned out that realization of the impressive plans of Soviet–Western cooperation mentioned at that time would be more difficult than they had been thought to be, that they would take a longer time and postulate a further improvement of the international atmosphere, these trends alone strongly influenced the concepts of the other CMEA countries aimed at the development of economic relations with capitalist countries, while Soviet policy towards imports and credit raising from the West became more active.

The exaggerated optimism concerning the nearest future of East-West trade developed around 1973 was replaced by disillusion following the anti-Soviet decisions of the

U.S. Congress at the end of 1974. In addition in 1975 problems resulting from external disequilibrium became more serious in almost all CMEA countries. But the fact that the almost complete denial of US government credits to the USSR did not result in a negative turn in Soviet trade with the developed capitalist countries, and their economic relations became even more lively, is also important for understanding the processes of East–West trade in the 1970s.

In the 1970s Soviet trade with Western countries increased more rapidly than in most of other CMEA countries. In 1978 the share of the USSR in the total imports of the European CMEA countries from the West amounted to 45 per cent and in their total exports to the West to 48 per cent. The share of developed capitalist countries in Soviet foreign trade increased: it reached 36–37 per cent in imports in 1975/76 and even after a subsequent decline it decreased only to 31.8 per cent in 1978; in exports the highest share was 30.2 per cent in 1974 followed by a decrease to 24.4 per cent, which is, however, still almost 6 percentage point more than the corresponding data of the previous decade.

The rapid growth of trade with the West took place with the dynamics of imports considerably exceeding that of exports – just as in the case of Hungary and other CMEA countries – thus during the decade, mainly after 1975, considerable trade deficits have accumulated. The *extent* of deficits was of course different. Between 1975 and 1978 the USSR accumulated deficits of about 10 thousand million dollars in the trade with developed capitalist countries and about 82-82 per cent of its imports were covered by commodity exports to these countries. Deficits of the considerably smaller Hungarian foreign trade with Western countries amounted to 2.7 thousand million dollars, while exports covered only 70 per cent of imports. When judging the extent of these deficits it should be taken into consideration as well that the USSR has better possibilities than Hungary to cover these deficits through other receipts in convertible currency – gold sales, exports to and imports from the West the conclusion has to be drawn that covering the increasing volume of import through export requires great national efforts also in the USSR.

Similarities between Hungary and the USSR can be observed not only in the development of import, export and balances. It is more important that in all European CMEA countries there have been *several very similar reasons* for the above trends in the trade with Western countries. Our countries are able to satisfy increased and diversified needs of the economy from domestic production or import from other CMEA countries to a lesser extent than previously not only in most up-to-date products, but also in many other materials, consumer goods and agricultural products. Even the mutual endeavours aimed at a faster increase of deliveries within the CMEA generate increasing imports from the West. Namely, because of the increasing Western import contents of the trade within the CMEA and of the Western import needs of joint investments realized with the cooperation of CMEA countries a close relationship has developed between the development of cooperation within the CMEA and the trade with countries outside the CMEA.

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Well-known problems of improving efficiency, slackening economic growth (including the insufficient development of fuel-, raw- and primary material producing branches and increasing burdens of their development) and repeatedly unfavourable harvests increased demands for imports from outside the CMEA and made the raising of commodity funds for export also more difficult. Under the circumstances of foreign economic tensions the individual countries make increased efforts that their commodities, saleable for convertible currency, should be actually sold for convertible currency and not in the traditional framework of cooperation within the CMEA. Because of the wellknown pattern of trade within the CMEA this increases imports from outside the CMEA region first of all in the smaller CMEA countries (though indirectly it affects also the increase of Soviet import needs through the diminished delivery capacities of the latter).

All this can be formulated as regards present headaches in the following: the task of restricting Western imports is further complicated by the fact that precisely an import substitution process of opposite direction is taking place: namely, more and more such goods have to be purchased from developed capitalist (or developing) countries which could previously be bought in CMEA countries.

Of course, this affects first of all those countries seriously, which were anyway affected by the world economic changes following 1973. The unfavourable trends in Hungarian foreign trade cannot be separated from the facts that our terms of trade deteriorated in connection with the changes in relative world market prices, that the agrarian protectionism of the European Communities raised more serious obstacles than previously to the increase of our agricultural exports and that the possibilities of exports of manufactured products have been made more difficult by the 1974–75 crisis and uncertain market conditions ever since then. Thus the state of external equilibrium deteriorated even despite the fact that the *volume* of imports from developed capitalist countries increased at a relatively moderate rate: there was a twofold increase between 1970 and 1978. (The volume of total imports from non-socialist countries – i.e. from developed capitalist and developing countries – increased altogether by 80 per cent.) [4]

On the other hand, world market developments were extraordinarily favourable for Soviet foreign trade with the West in the period after 1973 - since oil export is of decisive importance within it – and the deterioration of equilibrium took place with an improvement in the terms of trade, because of a rapid increase in the volume of imports determined by the development of domestic demand. (Soviet imports from developed capitalist and developing countries increased 2.5-fold between 1970 and 1978 computed at constant prices.) [5]

It becomes at any rate understandable from the foregoing that it will be more and more a key-issue in all CMEA countries – thus in Hungary and in the USSR, too, – to create more favourable conditions than previously for the increase of exports to developed capitalist countries. To formulate a *new approach to exports* is an issue of basic importance. Namely, from time to time the view of the 1930s is still emerging according to which import is of primary importance in the socialist economy, while the national economic importance of export is smaller. Or, it is stressed in some form or other that

socialist countries are for various reasons not able to efficiently export to Western markets and this creates the necessity to go on with an import substitution policy. In the case of Hungary this is sometimes supported also by the statement that changes in world market prices speak in favour of import substitution as well. These views are connected with the practice, not fully eliminated even today, which developed when East-West trade was still low and imports from the West were increasing relatively slowly. For the compensation of imports it seemed to be enough to export to the developed capitalist countries only what remained after the satisfaction of domestic needs and those of CMEA partners (these needs were of course restricted and suppressed), while problems connected with the boosting of exports to the West as a direction of economic development and its methods were not dealt with at all. [6] With the rapid increase of imports, however, precisely this approach to export led to increasing deficits in the balance of foreign trade. It is known that precisely the lack of proper commodity funds suited for export to the West causes the tensions in East-West trade and also impedes a faster expansion of trade within the CMEA. Therefore, such a policy of economic development is needed - taking also viewpoints of the further development of CMEA cooperation into consideration - which takes the requirements of production for the world market emphatically into account.

# Structure of foreign trade and related tasks of the economy

The requirements raised by production for the world market towards the economic policy of a country may depend, beside external – world economic – conditions, on the internal conditions of the economy: on its development level, production structure and traditions, on the degree of foreign trade intensity and several other factors. The commodity pattern of foreign trade is of great importance, too.

Depending on their concrete conditions the foreign trade structures of the individual countries (and within this mainly the structure of exports, but also that of imports) naturally differ. The given historically developed commodity pattern is judged by the individual countries as favourable or unfavourable, to be either maintained or changed. Economic policy experts and economists often say that the export structure of a country needs improvement. By this it is usually meant that the shares of machinery embodying up-to-date technology, of products processed to higher degree and, in general, of goods that can be easily sold on the world market should be increased in exports. But these generally correct considerations alone will not give any orientation as to how a given country might increase its exports most easily and rationally. Namely, there is no "ideal" and "up-to-date" export pattern universally valid for all countries. Only export returns will show whether the export structure of a country is really up-to-date or not. And, the directions and modes of modernization can only be determined from the existing structure. If we wish to survey the development possibilities of Soviet and

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	Exports				Imports			
	1965	1970	1975	1977	1965	1970	1975	1977
Food, beverages								
and tobacco	5.9	5.3	1.8	1.6	23.2	8.1	17.0	13.8
Raw materials	38.6	34.4	25.0	19.9	10.0	4.9	3.2	4.6
Mineral fuels	28.2	33.4	54.0	56.5	0.1	0.2	0.3	0.4
Chemicals	2.3	3.2	3.9	6.0	12.3	10.1	7.8	8.9
Manufactured goods classified chiefly								
by materials	22.9	18.6	9.8	11.6	17.2	27.7	30.8	28.1
Machinery and trans- port equipment	1.9	3.6	4.4	3.1	32.6	40.0	36.6	39.1
Miscellaneous manu- factured articles	0.4	0.7	0.6	0.6	3.7	8.5	3.8	4.4
Commodities and trans- actions not classified								
according to kind	0.2	0.9	0.5	0.6	0.6	0.6	0.6	0.6

 
 Table 1

 Commodity pattern of USSR trade with developed capitalist countries (total exports and imports, respectively = 100)

*Note:* The columns do not always add up to 100, because of rounding. *Source:* Computed on the basis of OECD Foreign Trade series C.

Hungarian foreign trade with developed capitalist countries, we can start only from the present commodity patterns, too.

In our further investigations we rely on the two tables presented above. When examining Soviet and Hungarian imports it is immediately striking that in case of both countries machinery and transport equipment (SITC 7) are the largest items. In the Soviet imports, however, the share of machines has always been much higher than in the Hungarian one ever since 1965. This indicates that the development (investment) character of Soviet imports is more explicit than that of Hungarian imports. This is supported also by the fact that in the category of manufactured goods classified chiefly by material (SITC 6) including products used both in development (investment) and in current production - which is the second largest category of goods both in Soviet and in Hungarian imports - the major part of Soviet purchases are investment goods; here belong, for example, steel pipes, one of the largest items in Soviet imports from the West. Considering the character of imports for development purposes, there is also some difference between the USSR and Hungary. Soviet machinery imports are more rapidly increasing and contribute to the development of a growing number of branches of the Soviet industry, i.e. they are becoming diversified. Despite this, they play the most important part in supplying with machines the investment projects of outstanding importance in the development of the national economy and of branches having priority

	Exports				Imports			
	1965	1970	1975	1977	1965	1970	1975	1977
Food, beverages			· · · · ·					
and tobacco	48.0	40.1	32.8	28.0	12.8	12.5	7.4	6.5
Raw materials	11.3	12.9	9.9	10.2	16.3	10.2	6.1	6.6
Mineral fuels	3.2	2.6	2.0	4.4	0.3	0.7	0.3	0.3
Chemicals	4.3	5.1	7.2	8.5	18.8	18.8	24.3	22.2
Manufactured goods classified chiefly								1
by materials	18.6	20.4	18.0	18.6	25.6	29.9	30.8	27.0
Machinery and trans- port equipment	4.3	6.4	9.3	10.1	22.3	22.4	25.7	31.2
Miscellaneous manu- factured articles	9.7	11.1	19.6	19.3	3.3	5.2	4.6	5.2
Commodities and trans- actions not classified								
according to kind	0.8	0.9	1.1	0.9	0.6	0.3	0.5	0.9

 
 Table 2

 Commodity pattern of Hungary's foreign trade with developed capitalist countries (total exports and imports, respectively = 100)

*Note:* The columns do not always add up to 100, because of rounding. *Source:* Computed on the basis of OECD Foreign Trade series C.

in industrial development. Hungarian machine imports are of a somewhat different character related to the deviating features of industrial development. Various central development projects and major investment projects, too, are strongly relying on the import of advanced Western technology. However, the overwhelming part of machine imports from the West contributes to supplying with machines smaller investments realized in the sphere of enterprise decisionmaking and not central projects. This – as will be seen – is of great importance for ensuring export commodity funds in view of the structure of Hungarian exports.

Imports of food (SITC O and 1) coming from developed capitalist countries are considerable in the USSR (first of all because of permanent imports of grain in very large volume in years with unfavourable harvests), while in Hungary they show a decreasing trend, but still have an important part in food supply. In the category of miscellaneous manufactured articles (SITC 8), consisting mostly of *manufactured consumer goods*, both the Hungarian and the Soviet imports are relatively small. This situation can already less be attributed to the previous standpoint which, judged imports of consumption character from developed capitalist countries as wrong and harmful, but rather to those tensions in trade balances which restrict the possibilities of increasing imports.

The vulnerable spot of Hungarian imports is undoubtedly the enormous volume of material imports for use in production. While the great part of our raw material and fuel

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imports from outside the CMEA is obtained from developing countries, we buy various industrial materials, semi-finished products, component parts and units from developed capitalist countries in large quantities. These products amounted to almost half of our total imports from the West in 1977. It is no chance that when the possibilities of replacing Western import by domestic production or with the help of the development of CMEA cooperation are considered in Hungary, it is usually also raised that the extra-ordinarily high import share of the products mentioned qualified as undesirable or "wrong" should be diminished.

The problem of material imports is closely related to what has been told about participation in the international division of labour in general. A considerable part of such import materials is up-to-date, or at least of a quality or assortment not produced in socialist countries: use of machines bought from the West, production on the basis of Western licence, production in cooperation with Western firms, or perhaps "simply" the manufacturing of up-to-date products of good quality require the use of these materials and components. A considerable part of material imports is already explained by this circumstance alone. But the problem is not only that, since for a small country like Hungary the endeavour to widen the anyway too broad range of domestic production would be especially unfavourable, diminishing the efficiency and external competitiveness of the economy and impeding modernization of the production pattern and technological development. It is also well-known that cooperation in the production of components, spare parts and partial units is one of the weakest points in CMEA cooperation.

As against imports whose composition is similar in many respects, the structures of Soviet and Hungarian exports to developed capitalist countries show marked differences. Three quarters of Soviet exports consist of raw materials and fuel (SITC 2, 3, 4), while the share of manufactured products (SITC 5–8) hardly exceeds 20 per cent and the anyway low earlier level of food exports has decreased to the minimum since the mid-1970s. On the other hand, manufactured products are predominant in Hungarian exports. Their share exceeded 56 per cent in 1977 as against 37 per cent in 1965. Despite its diminishing share, agrarian exports – still the predominant item in Hungarian trade with developed capitalist countries in 1965 – has remained a considerable source of export receipts. The share of raw materials and fuels in the value of exports did not change – amounting to 14-15 per cent – indicating a decreasing share in the overall volume considering price trends.

Table 1 indicates that in Soviet exports the most important change during the last more than ten years has been the doubling of the share of fuel exports. This change can be unambiguously explained by the sudden increase of receipts from oil exports, because of the oil price explosion (in 1969 one fourth of fuel exports to the West was coal and coke, while at present this is only about 7 per cent; and the share of natural gas is still less than that of solid fuel). The increase in the share of fuel exports took place with a decrease of the shares of other raw materials.

The problems of Soviet raw material production, first of all those of increasing oil production are well-known. The increase of production can keep pace with the increasing

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raw material and energy needs of the Soviet economy with growing difficulties only. That is why the satisfaction of increasing demands of CMEA countries in earlier proportions causes also difficulties. Because of all what has been mentioned in the foregoing we are also of the opinion that perspectives for increasing exports in the distant future will be determined first of all by the development possibilities of the exports of industrial goods and it is more and more important also for the Soviet Union to find ways and methods deviating from those applied with the sales of raw materials – enabling a dynamic growth of exports in manufactured goods. In the short run, however, the situation is different. The share of industrial goods in Soviet exports to the developed capitalist countries is small, as yet. Thus, even a much more rapid increase of the exports of industrial goods than at present would not be enough to achieve the required increase of receipts from exports. (By the way, from among various groups of industrial articles only that of chemical products shows an unambiguously dynamic export increase at present.) Therefore, for the time being, it is of decisive importance for Soviet exports to the developed capitalist countries how much raw material (first of all oil) can be allocated to these exports and what price can be obtained for them. With regard to the well-known price trends on the world market it is especially understandable that at the 25th Congress of the CPSU it was emphasized in the Central Committee's report: the share of most profitable raw materials in Soviet exports has to be further increased. [7]

In the present market situation the export of raw materials – especially that of fuels – is generally limited only by the *quantity* of available commodity supply. Therefore, the increase of exports depends first of all on the possibilities of raising production (beside the development of domestic use). This explains the great interest of CMEA countries exporting raw materials (the USSR and Poland) in *compensation deals* connecting directly the import of Western technology with exports, also in kind, in the framework of which also the raising of considerable credit furthers the realization of development projects of energy and raw material production and deliveries. It is understandable that compensation transactions are considered in the USSR as one of the most important new forms of foreign economic relations with Western countries. [8] The about 60 compensation transactions concluded by 1978 prove that in the USSR enormous investments serve now the long-term development of exports, i.e. the country tries to provide foundation for its Western export policy for the long run. [9]

If the decisive part of exports is made up of only a few products of homogeneous composition that can be delivered in large quantities, while adaptation to market demands causes no special problem and problems of domestic cooperation are hardly raised either, then trade can be successfully increased also in the longer run by means of a relatively limited number of "big" transactions, which are centrally supervised and directly controlled in the phase of preparation, concluding and realization as well. (Concentration of imports on priority development and other tasks has a similar effect.) This corresponds to the concept of giving preference, first of all, to those foreign trade transactions which have overall impact on national economy in themselves, for example, influence the production of an industry or branch to a considerable extent. They are

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especially preferred if export or import transactions of such branches are involved which, by their importance, are in the focus of attention of the economic control organs. Compensation transactions are enhanced first of all precisely in these branches.

But if the structure of exports is diversified and includes with considerable weights, manufactured goods and agricultural products, if exports are made up of a great number of small items, then success often depends not so much on the utilization of advantages of mass production, but rather on fast adaptation to differentiated demands, good quality, rapid delivery, adequate organization of sales, the ability to respond to market changes. If the exporter depends on dozens of domestic suppliers then the increase of exports raises also other requirements and tasks towards the economy.

In solving these tasks central decisions cannot play the same part as in the increase of raw material exports, where the creation of certain extractive and transport capacities and the concentration of investments (if possible) to the given area may be directly reflected in export results. Also Hungarian experiences indicate that with exports of manufactured goods and agricultural products in a diversified composition this approach is not satisfactory. Expensive central projects served first of all not so much the increase of exports to the West, but domestic supply and exports to the CMEA countries. But, giving preference to a branch or subbranch in the framework of any project or establishing any new factory or plant may prove insufficient for success even if the project is aimed at increasing exports to the West. The putting into operation of most up-to-date productive equipments alone will not guarantee either that with their aid products profitably exportable from all viewpoints will be manufactured. The technological up-todateness of a branch, factory or plant is not yet identical with the up-to-dateness and marketability of their products.

The development and continuous maintenance of an up-to-date product (export) structure is, of course, a development task requiring investment. Central investment projects also have to serve the goals of export development. It is an urgent task of the state, among others, to ensure the infrastructural conditions of our competitiveness on the world market. However, production for export to the West often requires first of all not large-scale investments realized in the framework of central projects which are aimed at the reconstruction or creation of a branch, but precisely smaller investments which, however, can be more rapidly realized in the scope of enterprise decision making. The enterprises have to work under such conditions which allow them to make these investment decisions in harmony with the requirements resulting from the equilibrium position of the national economy.

In more general terms, the development of an efficient export structure is *not only* an *investment problem*: to establish an economic mechanism orienting towards right economic decisions is the primary condition of a dynamic boosting of exports. Improvement of the export structure should start with a better utilization of existing productive equipments, improvement of the quality of export products, the widening or - occasionally - narrowing of the assortment. Moreover, it cannot be separated from a better organization of sales, the assessment of market demands and a continuous enforcement in de-

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velopment policy of impulses obtained in this way. Because of the ramifying domestic cooperation relations of exporting enterprises it cannot be separated from the enforcement of this mechanism in the *entire economy*, either.

Considering the above from a little different approach: in present Hungarian exports to developed capitalist countries products of highly differing branches are important items (engineering, metallurgy, the chemical industry, the light industry, agriculture and the food industry). It may be assumed that all – or almost all – of these branches have to take some responsibility in a future export increase, also because it would be very difficult to compensate for their possible losses by an adequately dynamic increase of the export in other fields. Therefore, primary importance is attributed to improving the micro-structure and the product pattern from the viewpoint of increasing exports and this is, by its nature, a task to be solved at enterprise level.

At present all CMEA countries are struggling with problems of increasing efficieny. All of them consider the increase of efficiency and the improvement of quality as most important economic tasks of the present period. But present problems mostly result precisely from the fact that for a long time efforts were made to solve the task of modernizing the economy, of raising production and of eliminating shortages and bottlenecks first of all through new major "green field" investments, while the continuous technological development of the functioning economy and the changing of the product pattern to correspond to increased and changing demands, higher quality requirements, among others those of the international market, were not given enough attention. The difficulties faced by all CMEA countries at present when they make efforts to boost their exports of manufactured goods to the West also warn that it may not lead to adequate results, nor will it be efficient enough if we wish to solve the export problems first of all through the concentration of investment resources – even on an international scale – on some selected development objectives.

We do not only think of the considerable time and resource (among others also Western import) intensity of the establishment of new big projects that may get into conflict with the requirements of an immediate improvement in the state of external and internal equilibrium as well as with the fact that because of the changing world market situation and conditions of CMEA cooperation a greater part than previously of investment resources has to be spent on other objectives not related to export orientation, but rather aimed at import substitution, thus on the development of energy supply. The problem is not only the complicatedness of judging the profitability of such projects, but even more the circumstance that at the present level of participation in the international division of labour the state of the economy and its external equilibrium are determined in the long run by the productive performance of the entire economy. Even the most successful major investment projects aimed at increasing exports cannot basically improve the equilibrium if the other factories and plants will continue working at the present efficiency level and their product pattern will not improve, thus they only import from but do not export to the West.

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## Some further conclusions

From the commodity pattern of Hungarian exports reviewed in the foregoing also further conclusions can be drawn. It results from this structure, for example, that in the development of trade with capitalist countries further development of *industrial cooperation* is very important in Hungary.

Namely, it is an increasingly obvious lesson of investigations of latest trends in international trade that the establishment of direct inter-enterprise relations relying on a lasting community of interests is an extraordinarily important precondition of the increase of exports of manufactured products in several fields, first of all in certain engineering branches.

It is obvious as well that - because of its export pattern - Hungary is strongly afflicted by trade restrictions enforced in the West, thus e.g. in countries belonging to the Common Market. These affect - as is known - agricultural products and manufactured goods. Though Common Market restrictions have been somewhat mitigated during the last 10-15 years, this favourable process has been made ineffective by other developments unfavourable to us. [10]

While most of the CMEA countries tried to achieve only sectoral, so-called technical agreements with the Common Market concluded at most only in certain partial matters quite until 1976 – when the CMEA initiated to conclude an agreement with the Common Market – several other (developing, South-European, etc.) countries made successful efforts to settle their economic relations with the Common Market, among others to conclude agreements on the problems of their exports to the Common Market countries. To the extent as their endeavours were successful did our disadvantages increase in the competition against them.

This question cannot be separated from the commodity pattern of our exports of manufactured goods to the Common Market. The fact that there are relatively few up-to-date machines and other industrial articles of outstanding quality, corresponding to differentiated individual needs in our export makes us especially sensitive to restrictions. Among our products delivered to the West such price-sensitive mass products (e.g. clothing) have an important part which are considerable items in the export of other countries to the EC as well. Namely, precisely with the export of manufactured goods where the slow expansion of market demands, quantitative restrictions on the import of several goods and the highest tariff rates of the Common Market have to be overcome anyway, we are faced with the keen competition of those countries, too, which enjoy preferences granted by the Common Market to an ever greater extent.

From this a double conclusion can be drawn: on the one hand, it is an urging necessity to improve the commercial policy conditions of our exports, even more urging than in 1974 when the issue was put on the agenda with the expiry of trade agreements between some CMEA and Common Market countries; on the other hand, critical conclusions have to be drawn from the analysis of our present export structure.

We could not undertake to make a comprehensive comparison between Hungarian and Soviet foreign trade with developed capitalist countries. Our purpose was merely to outline some important and topical issues. The problems our countries have been faced with in the trade with the West require differentiated and careful approach free from pre-fabricated schemas. It is similarly important to draw attention to the fact that concerns of socialist countries related to East–West trade have common causes and are connected with the characteristics of the present stage of their development and with difficulties of their cooperation, as well as to the fact that the situation of the individual countries is also different in many respects. Their different situation may require in economic relations with the West, in efforts aimed at increasing exports – just as in several other fields – sometime also different solutions.

#### References

- 1. Statisztikai évkönyv 1978. Budapest, 1979. (Statistical yearbook of Hungary 1978.) Budapest, 1979. Központi Statisztikai Hivatal. p. 108
- 2. ШМЕЛЕВ, Н. П.: Социализм и международные экономические отношения. Москва, Международные отношения, 1979. р. 36
- 3. PÁSZTOR, S.: A gazdasági nyitottságról (A gazdasági nyitottság tényezői, e tényezők szerepe a magyar gazdaságban). (On the open character of the economy. Factors of the open character of the economy, the role of these factors in the Hungarian economy.) Pénzügykutatási Intézet tanulmányai. (Studies of the Financial Research Institute.) 1978. No. 4, p. 42
- Külkereskedelmi statisztikai évkönyv (Yearbook of foreign trade statistics of Hungary) Budapest, 1979. Központi Statisztikai Hivatal p. 15
- 5. Внешняя торговля СССР в 1978 г. Москва, 1979. Издательство Статистика. р. 18
- 6. KÖVES, A .: Socialist economy and world economy. Acta Oeconomica, Vol. 21, No. 4
- 7. Материалы XXV. съезда КПСС. Москва, 1976. Политиздат. р. 57
- 8. Ibid, pp. 57-58
- 9. ШМЕЛЕВ, Н. П.: ор. cit., p. 136.
- 10. KÖVES, A.: A KGST-országok és az EGK-tagállamok kereskedelme (Trade between CMEA-countries and states belonging to the EC). Külgazdaság, 1979. No. 11, pp. 3-12

#### ВНЕШНЯЯ ТОРГОВЛЯ ВЕНГРИИ И СССР С РАЗВИТЫМИ КАПИТАЛИСТИЧЕСКИМИ СТРАНАМИ — ПРОБЛЕМЫ ОБЩИЕ И РАЗЛИЧНЫЕ А. КЕВЕШ

Автор обращает внимание на то, что проблемы, с которыми сегодня сталкиваются социалистические страны в торговле с развитыми капиталистическими странами, имеют общий корень, однако различное положение стран может иногда требовать различных решений и в вопросах торговли с Западом, в выборе наилучших методов увеличения экспорта.

Этот вывод подтверждается анализом товарной структуры венгерского и советского экспорта в развитые капиталистические страны. В то время как три четверти советского экспорта составляют сырье и топливо, в венгерском экспорте преобладают промышленные и сельскохозяйственные товары. Если подавляющая часть экспорта страны состоит всего из нескольких товаров однородного состава, поставляемых в больших количествах, в отношении которых приспособление

к запросам рынка не вызывает особых забот и проблемы внутреннего кооперирования также незначительны, то создание определенных добывающих и транспортирующих мощностей, сосредоточение капиталовложений в экспортирующих отраслях (если это возможно) могут положительно отразиться на результатах экспорта. Такой подход, однако, не дает удовлетворительных результатов, когда речь идет об экспорте промышленных и сельскохозяйственных товаров. В последнем случае — как считает автор — создание эффективной экспортной структуры является не только задачей, осуществимой посредством капитальных вложений, не в меньшей мере необходим и хозяйственный механизм, ориентирующий на правильные экономические решения.

Трудности, с которыми в настоящее время сталкиваются все страны СЭВ в своем стремлении к увеличению экспорта промышленных товаров в страны Запада, предупреждают о том, что невозможно достичь ожидаемых результатов, добиться необходимой эффективности, желая увеличить экспорт в первую очередь путем концентрации — даже и в международных масштабах инвестиционных ресурсов на те или иные цели. Создание новых крупных объектов требует много времени и огромных ресурсов (в том числе и импорта из капиталистических стран). Дело не только в известной всем сложности определения эффективности таких проектов. Речь идет прежде всего о том, что в перспективе положение и внешнеэкономический баланс обуславливаются мощностью и эффективностью народного хозяйства в целом. Даже и наиболее успешные крупные капитальные вложения в экспортное производство не могут значительно улучшить балансовые позиции, если остальные заводы и фабрики и впредь будут работать при нынешнем уровне эффективности.

Acta Oeconomica, Vol. 23 (3-4), pp. 339-351 (1979)

# U.-P. REICH

# FROM HETEROGENEOUS TO ABSTRACT LABOUR AND THE DEFINITION OF SEGMENTATION

One of the classical problems of labour value theory is how to define labour values if labour is not uniform but heterogeneous in quality. In this case labour time cannot function as the measure of value since there are labour times of different quality employed in the economy. The reduction of different labour times to one common unit of value gives rise to the concept of abstract labour based on a rate of surplus value uniform for all different kinds of labour. Labour is defined here as heterogeneous if the costs of reproduction are different for different kinds of labour. It is shown that in contrast to *Morishima* who denies the possibility of a uniform rate of exploitation in this case, such a rate can be defined so that heterogeneity of labour no longer represents an obstacle to the use of labour values.

## 1. Introduction

Heterogeneity of labour has for long been an obstace to the application of labour values in economics. Even to Morishima, who solved many a problem of traditional labour value theory, this is still a stumbling block. To him a uniform rate of exploitation is an essential of this theory, but if heterogeneity of labour is allowed for, a uniform rate of exploitation does not obtain except under special, but unrealistic, mathematical conditions (1973, p 192 f.). *Bowles* and *Gintis* have responded to this critique by relaxing the postulate of a uniform rate of exploitation. To them one of the means as well as results of exploitation in capitalist society is segmentation of the labour force. Capital continuously strives to partition labourers into male-female, black-white, etc. segments, building on "the structure of hierarchical authority, job fragmentation, racism and sexism as the basic aspects of the capitalist firm" (1977, p. 177). In our view taking up this insight and incorporating it into labour value theory is an important step towards recognizing the reality of organization of the modern labour force. The conflicts existing not only between labour and capital but between different segments of the working class as well are every day phenomena and should not be ignored in labour value theory.

We question, however, the mathematical operationalization of this theoretical insight, which has been developed by the authors. It seems to us that their model is in some respect more complicated than is necessary for describing heterogeneous labour, while it is too simplistic in treating unequality of exploitation. In the following, we want to propose a different mathematical model which meets both criticisms.

#### 2. Heterogeneous labour in the Bowles-Gintis-model

In order to cope with heterogeneity of labour, Bowles and Gintis introduce a matrix  $\Lambda = \{\lambda_{ri}\}$  where  $\lambda_{ri}$  denotes the amount of labour of kind r incorporated in good i. Its definition is as follows:

$$\Lambda = \Lambda C + L, \tag{1}$$

where  $C = \{c_{ij}\}\$  is the input of good i required for production of one unit of good j, and  $L = \{l_{rj}\}\$  is the input of labour r required for this purpose. Let there be n different goods and m different kinds of labour force. Apparently eq. (1) is a straight-forward extension of the conventionel definition of labour value in the case of uniform labour. Instead of a vector we now have a matrix of labour values.

Let  $B = \{b_{ir}\}\$  be the amount of product i in the wage bundle of labour r, then the value of labour power is again a matrix  $V = \{v_{rs}\}\$  given by

$$\mathbf{V} = \mathbf{\Lambda} \mathbf{B} \,, \tag{2}$$

which shows the amount of labour of kind r contained in the wage bundle of labour s. The absolute amount consumed by the different segments depends on the activity levels y at which the economy, defined by the cost structures C, L and B, operates. Variable capital v(y) is given by

$$v(y) = \Lambda B L y = VLy$$
(3)

where  $y = (y_1, y_2, ..., y_n)$  is the vector of outputs.

From this Bowles and Gintis define two "natural extensions" for a vector of rate of exploitation. The first is

$$\sigma_{\rm r}({\rm y}) = \frac{({\rm I} - {\rm V}){\rm Ly}}{{\rm VLy}} \,. \tag{4}$$

This is the formal analogy to the homogeneous case in the sense that the traditional equation 'total value = constant capital + variable capital (1 - rate of exploitation)' can be taken over in the new theory. Substantively,  $\sigma_r(y)$  does not represent the 'own rates of exploitation' of r-labour, since the r-labour contains within its wage bundle other types of labour which it consumes. Therefore, Bowles and Gintis introduce another vector of rates of exploitation  $e_r$  by defining

$$e_{r}(y) = \frac{1 - 1*V}{1*V}$$
 (5)

where  $1^*$  is the unity vector  $(1, 1, \ldots, 1)$ .

The first definition adds up all labour-time of a given kind r, that is consumed by the total labour force and relates it to what is not consumed by it. The second definition aggregates within one skill r all labour-time of any kind contained in the wage bundle r and relates it to the one hour of labour nourished by the bundle.

It is not clear which definition Bowles and Gintis prefer. Their position is in fact somewhat contradictory. In adding only labour time of the same kind the first definition keeps separate the different kinds of labour. This is in line with the general approach of Bowles and Gintis, who try to avoid the reduction problem by vectorizing the rate of exploitation. Yet, in the text, Bowles and Gintis employ the second definition, apparently, because it is more meaningful in that it describes some form of exchange: How much labour is received for one hour of labour supplied by a particular skill r. Since in this definition different types of labour are aggregated, one needs conversion rates and in definition (5) Bowles and Gintis imply that the conversion rates are one.

In the appendix they further state that "this concept will have substantive import only in those situations in which it is reasonable to attribute to all labour hours an 'equal worth' (p. 190). But they do not explain under what circumstances labour hours do, in fact, have an equal worth, or in other words they fail to explain when this reduction formula should be used. At the end of their article Bowles and Gintis are back here they started.

# 3. Defining abstract labour

Let us apply the mathematical concepts suggested by Bowles and Gintis to an economy, where there are two products produced by two kinds of labour only. Let *Table 1* represent that economy:

114	produ	ction		gross		
	agriculture	industry	farmers	workers	surplus	output
agriculture	20	50	70	0	60	200
industry	80	200	0	150	70	500
farmers	70	0				
workers	0	150				

	Table 1	
Example of an economy of	two sector and two	kinds of labour

We find the input coefficients  $c_{ij}$ ,  $l_{rj}$ ,  $b_{is}$  by dividing the absolute figures in *Table 1* into the appropriate gross output. Thus we have

 $C = \begin{pmatrix} 0.1 & 0.1 \\ 0.4 & 0.4 \end{pmatrix} \qquad \qquad L = \begin{pmatrix} 0.35 & 0.0 \\ 0.0 & 0.3 \end{pmatrix} \qquad \qquad B = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}.$ 

Inserting these matrices into definition (1) yields

$$\Lambda = \begin{pmatrix} 0.42 & 0.07 \\ 0.24 & 0.54 \end{pmatrix}$$

A unit of agricultural product is worth 0.42 hours of farmers' labour and 0.24 hours of workers' labour. Applying eq. (2) we get

$$\mathbf{V} = \begin{pmatrix} 0.42 & 0.07 \\ 0.24 & 0.54 \end{pmatrix} \,.$$

the same as  $\Lambda$  since B is the unit matrix in this example. V signifies that in order to produce 1 hour of farmers' labour 0.42 hours of the same labour and 0.24 hours of workers' labour are required.

Proceeding to eq. (3) yields

$$\mathbf{v}(\mathbf{y}) = \mathbf{v} \begin{pmatrix} 200\\500 \end{pmatrix} = \begin{pmatrix} 0.42 & 0.07\\0.24 & 0.54 \end{pmatrix} \begin{pmatrix} 0.35 & 0.0\\0.0 & 0.3 \end{pmatrix} \begin{pmatrix} 200\\500 \end{pmatrix} = \begin{pmatrix} 40\\98 \end{pmatrix}$$

from which finally we arrive at the two vectors of rates of exploitation according to definitions (4) and (5)

$$\sigma_{\mathbf{r}} \begin{pmatrix} 200\\500 \end{pmatrix} = \begin{pmatrix} \frac{70 - 40}{70}\\ \frac{150 - 98}{98} \end{pmatrix} = \begin{pmatrix} 0.75\\0.53 \end{pmatrix}$$

and

$$e_{r} \begin{pmatrix} 200\\ 500 \end{pmatrix} = \begin{pmatrix} \underline{1 - 0.66}\\ 0.66\\ \underline{1 - 0.61}\\ 0.61 \end{pmatrix} = \begin{pmatrix} 0.52\\ 0.64 \end{pmatrix}$$

We have four different rates of exploitation, each with a different meaning.  $\sigma_1$  tells us, for example, that the surplus of the economy contains 75 per cent of what is contained in the consumption of the working classes in terms of farmers' labour. The corresponding figure is only 53 per cent for workers' labour. Are the workers therefore less exploited than the farmers?

According to Bowles and Gintis this question is answered not by  $o_r$  but by  $e_r$  on the assumption that there is a situation in which we can attribute to all labour an 'equal

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worth'. In this case we can speak of common labour hours. Farmers receive 0.52 common labour hours for one hour of toil, workers receive 0.64 common labour hours for every hour of work, so, according to Bowles and Gintis, the farmers are the more exploited stratum.

The crucial point here is the assumption of equal worth of different labour hours. Bowled and Gintis take this as a datum. In our view, the valuation must be derived from the model itself, if it is to solve the reduction problem.

For this purpose let us introduce a different mathematical operationalization of the segmentation theory. We follow Morishima (1973, p. 192)\* in defining

$$\lambda = \lambda C + \vartheta L \tag{6a}$$

$$\vartheta = \lambda B$$
 (6b)

This is a set of n + m linear homogeneous equations for a vector of n variables  $\lambda_i$  and m variables  $\vartheta_r$ .

Such a system has a solution if and only if the determinant of its coefficients equals zero. In general, this is not the case. Morishima, therefore, converts this system to a non-homogeneous system by choosing the hour of unskilled labour as unity and, more important, by cancelling the last of the  $\vartheta$ -equations, which would define the value of this unskilled labour. The result is

$$\lambda_{j} = \sum_{i=1}^{n} \lambda_{i} c_{ij} + \sum_{i=1}^{m-1} \vartheta_{i} l_{ij} + l_{mj}, j = 1 \dots n$$
  
$$\vartheta_{j} = \sum_{i=1}^{n} \lambda_{i} b_{ij}, j = 1 \dots m-1$$
(7)

a non-homogeneous system of n + m - 1 linear equations for the same number of variables, which normally has a solution.

For reasons to be explained later we do not follow this route. We propose a different way of changing eq. (6) to a system that can be solved

$$\lambda = \lambda C + \vartheta L \tag{8a}$$

$$\vartheta = (1+\sigma)\lambda B \tag{8b}$$

Thus we supplement the definition of values based on pure cost, as is done in eq. (6), by a parameter  $\sigma$ , which serves to solve the homogeneous system. This parameter is determined by equating the determinant of system (8) to zero. In fact, eq. (8b) can be inserted in eq. (8a), so that

$$\lambda = \lambda C + (1 + \sigma)\lambda BL \tag{9}$$

\*This is a simplification of Morishima's origin version in that it assumes that direct labour inputs in production of labour are zero.

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or

$$\lambda[I - C - (1 + \sigma)BL] = 0. \tag{10}$$

System (10) gives us a vector of labour values which takes account of heterogeneity of labour but at the same time implies a uniform rate of surplus value  $\sigma$ . This is signified by eq. (8b), where the value of each kind of labour is defined as a constant multiple  $(1 + \sigma)$  of reproduction costs. Each type of labour supplies  $(1 + \sigma)$  more value to production than it consumes.

System (10) is similar to production prices p defined by Bowles and Gintis in the following way (p. 187):

$$p[I - (1 + \pi)(C + BL)] = 0$$
(11)

and can be normalized in a similar way by taking one value, e.g. the value of unskilled labour as the unit of measurement.

System (10) solves the *Morishima* problem. It defines a uniform rate of surplus value for heterogeneous labour. To show that it is really the rate of surplus value, we can compare the net product (I - C)y to the input required to produce this net product, namely BLy, and we value both terms in labour values, so that we have

$$\frac{\lambda(I-C)y}{\lambda BLy}$$

as the relationship of net output to value of labour input. From eq. (10) it follows that

$$\frac{\lambda(I-C)y}{\lambda BLy} = 1 + \sigma$$

for any y, which proves the proposition that  $\sigma$  is the rate of surplus value of the economy.

System (10) teaches us something about the concept of abstract labour. If we accept that it is the division of labour and the resulting necessity of exchange, which require valuation of production in terms of abstract labour, the usual way of defining labour values by means of a single, homogeneous labour input does not fully describe the complexity of this abstraction. For, in this case, one can easily visualize labour as taking a particular concrete form, e.g. unskilled labour. Consequently, one is inclined to forget about the other characteristics that describe labour like qualification, intensity etc. and takes the hour of unskilled labour as the standard. But when units of labour time such as hours are used, these correspond to a reduction of different kinds of concrete labour to one particular standard of concrete labour. This is not the same as reducing all labour inputs including unskilled labour to common units of abstract labour. The work of a miner or a teacher or a shop-keeper is now compared by taking into account their

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different qualifications, different work intensities and so on, rather than just their labour times, all of which are reflected in the cost of that particular concrete type of labour.

System (10) introduces these different costs of reproduction in the definition of abstract labour. The corresponding eigenvector expresses the overall cost structure of the economic system. Products as well as types of labour are valued in such a way that each unit of output, no matter in what concrete form it appears contains the same amount of one common input, namely abstract labour. In this way we can speak not only of the content of abstract labour in products, but also the amounts of abstract labour contained in concrete forms of labour.

To finish this section let us apply our formula (10) to the example in *Table 1*. We find  $\sigma$  by setting

$$\det (I - C - (1 + \sigma)BL) = \begin{vmatrix} 0.9 - (1 + \sigma) \cdot 0.35 & -0.1 \\ -0.4 & -0.6 - (1 + \sigma) \cdot 0.3 \end{vmatrix} =$$

$$=(1 + \sigma)^2 - 4.57(1 + \sigma) + 4.76 = 0,$$

hence

$$\sigma = 0.62$$
 and  $\frac{\lambda_1}{\lambda_2} = 1.2$ .

Choosing the labour of the worker as a numéraire we have from eq. (8b)

so that

$$\vartheta_1 = 1.62 \times (\lambda_1 \times 1)$$
  
 $\vartheta_2 = 1.62 \times \lambda_2 \times 1 = 1$ 

$$\lambda_2 = 0.62,$$
  

$$\lambda_1 = 1.2 \times \lambda_2 = 0.74$$
  

$$\vartheta_1 = 1.2.$$

The labour of the farmer is 'worth' 20 per cent more than the worker's labour, because it costs more to reproduce in terms of abstract labour. Morishima's formula (7) yields (setting  $\vartheta_2 = 1$ ):

$$\lambda_1 = 0.1\lambda_1 + 0.4\lambda_2 + 0.35\vartheta_1$$
  

$$\lambda_2 = 0.1\lambda_1 + 0.4\lambda_2 + 0.3$$
  

$$\vartheta_1 = \lambda_1$$

the solution of which is

 $\lambda_1 = 0.094$  $\lambda_2 = 0.516$  $\vartheta_1 = 0.094$ 

This is quite different a valuation. Here the labour of the farmer is worth one tenth of that of the worker. In Morishima's system all surplus is attributed to the labour taken as the numéraire, in this case of the workers.\*

This surplus is given by the value of the labour supplied minus the costs of that labour. By eq. (7b) the two are identical except for that particular kind of labour taken as the numéraire. In our example these are the workers so we have

$$\sigma = \frac{I - \lambda_2 b_{22}}{\lambda_2 b_{22}} = \frac{I - 0.516 \cdot 1}{0.516 \cdot 1} = 0.94 .$$

In Morishima's model workers are exploited at a rate of 0.94 while the farmers are not exploited at all.

Apparently, this is a consequence of the operationalization which Morishima proposes, but not of the theory which he wants to model. We have shown that there are other mathematical operationalizations possible which allow a uniform rate of surplus value so that. Morishima's failure to show such a rate is a consequence of his value definition rather than an unavoidable implication of labour value theory.

As a consequence we can infer, that the way out chosen by Bowles and Gintis is unnecessarily complicated. It is not necessary to use a multi-dimensional notion of labour value. As Bowles and Gintis themselves have shown, such a notion is hard to interpret, it gives rise to different concepts of exploitation and it negates the concept of abstract labour. One cannot solve the reduction problem simply by avoiding it.

# 4. Segmentation of labour

Yet the phenomenon for the sake of which Bowles and Gintis have developed their mathematical apparatus cannot be disputed. Having shown how heterogeneous labour can be made comparable in terms of abstract labour in a mathematical model, we proceed to describe segmentation by means of this model.

It is at this point, that we believe that Bowles and Gintis have been too simplistic in their approach. In our view, heterogeneity and segmentation of labour are two different

\*Morishima does not take note of this assymmetry, but it reminds one of Quesnay's theory, where, too, only one type of labour is productive (farmers) the other (artisans) is deemed unproductive.

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phenomena belonging to different spheres of observation. Heterogeneity of labour is a phenomenon of production. Just as products (capital) are heterogeneous, so is labour and the corresponding problem is the same for both, namely how to value them in order to make them comparable in spite of their heterogeneity. For both, products and labour, this can be achieved on the basis of their cost structure as we have shown.

Heterogeneity of labour does not necessarily imply segmentation. Labour can be quite heterogeneous without being partitioned into different segments. Segmentation is a phenomenon not of production but of distribution. It is concerned not with costs of reproduction, a normative variable, but with actual consumption. Thus if we judge the black worker discriminated against by the white, we implicitely assume that the actual consumption of the latter is also the norm for the former. The same is true in the case of women versus men. However, these norms are not always so evident. Take, for example, the worker in Africa versus the worker in Europe. The costs of reproduction are not the same in both continents. To suppose, therefore, that simply because the costs of reproduction of the European worker are higher than the costs of the African worker, the first is exploiting the second would be wrong. But if there is no free movement of labour from Africa to Europe then there is sufficient reason to infer that the two groups of workers are segmented by social or political barriers.

Heterogeneity of labour does not necessarily result in segmentation. Consider, for example, that the main part of additional costs required for qualified labour is supplied free by the government to all alike (in principle). On the other hand, segmentation of labour is most easily observed if the different segments are homogeneous, not heterogeneous in terms of production. Here segmentation means that there is no reason based on economic grounds (production techniques) which would legitimate that segments differ in consumption, but that such a reason must be of a social or political nature.

In our mathematical model we have so far only dealt with production. We have derived a uniform rate of surplus value from the cost structure of an economy. We have implied nothing about actual consumption. Intentionally, therefore, we did not identify the rate of surplus value with the rate of exploitation. The reason for this is that in the actual capitalist system the bundle of goods consumed by the workers is not necessarily equal to the bundle of subsistence goods required for their reproduction. Because of this deviation the rate of exploitation, too, will deviate from the rate of surplus value, and in addition it will split into a vector.

This important distinction has not been considered by Bowles and Gintis. They do not differentiate between consumption required (production) and consumption actually effected (distribution). In the last section of this article we will try to demonstrate how this distinction can be included in a mathematical representation of segmentation.

Let  $\tilde{B}$  be the actual consumption observed in contrast to B, the (normative concept of) costs of reproduction. Let

V

$$= \lambda \overline{B}$$
$$= \lambda B$$

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(12)

be the actual and required consumption respectively in terms of abstract labour. We then define m distinct rates of exploitation  $e_r$ ,  $r = 1 \dots m$  by

$$(\mathbf{e}_{\mathbf{r}}+1) = \frac{\mathbf{v}_{\mathbf{r}}}{\bar{\mathbf{v}}_{\mathbf{r}}} (\sigma+1), \ \mathbf{r} = 1 \dots \mathbf{m},$$
 (13)

where  $\sigma$  is the uniform rate of surplus value of the economic system defined in eq. (10). Formula (13) has the following significance. In the model of pure capitalism, when all different kinds of labour consume exactly their costs, we have  $\overline{v} = v$ , and therefore  $e_r = \sigma$  for all r. The rate of exploitation is uniform and identical to the rate of surplus value. But if, as is normally the case, both variables differ, we can define

$$\Delta_{\mathbf{r}} = \overline{\mathbf{v}}_{\mathbf{r}} - \mathbf{v}_{\mathbf{r}}$$

and transform eq. (13) to

$$\mathbf{e}_{\mathbf{r}} = \frac{\mathbf{v}_{\mathbf{r}} \boldsymbol{\sigma} - \Delta_{\mathbf{r}}}{\bar{\mathbf{v}}_{\mathbf{r}} + \Delta_{\mathbf{r}}} = \frac{\mathbf{m}_{\mathbf{r}} - \Delta_{\mathbf{r}}}{\bar{\mathbf{v}}_{\mathbf{r}} + \Delta_{\mathbf{r}}}, \quad \mathbf{r} = 1 \dots \mathbf{m}, \tag{14}$$

where  $m_r$  is the surplus created by segment r. This has an intuitive meaning. If actual consumption deviates from normal ( $\Delta_r \neq 0$ ), the normal rate of exploitation is modified by subtracting from the surplus  $m_r$  created by labour r (in the numerator) and adding to costs of reproduction (in the denominator) whatever is consumed above costs. If the additional consumption equals the surplus, then there is evidently no exploitation, the rate of exploitation of this segment is zero. If, on the other hand, a labour segment is not consuming its cost ( $\Delta_r < 0$ ) its exploitation rises above normal (superexploitation), approaching infinity as actual consumption approaches zero. If the labour segment consumes exactly its costs of reproduction its exploitation is normal, the rate of exploitation equals the rate of surplus value.

In order to give an overall picture of product distribution in an economy we define an average rate of exploitation e by

$$(e+1) = \frac{\sum_{\mathbf{r}} (e_{\mathbf{r}}+1)\overline{\mathbf{v}}_{\mathbf{r}} \times z_{\mathbf{r}}}{\sum_{\mathbf{r}} \overline{\mathbf{v}}_{\mathbf{r}} \times z_{\mathbf{r}}} = \frac{\sum_{\mathbf{r}} v_{\mathbf{r}} \times z_{\mathbf{r}}}{\sum_{\mathbf{r}} \overline{\mathbf{v}}_{\mathbf{r}} \times z_{\mathbf{r}}} (\sigma+1),$$
(15)

where  $z_r = \sum_{j=1}^{n} l_{r;y}$ ; is the total labour input of kind r in the economy.

This completes the set of variables allowing to analyse the productive as well as the distributive structure of an economy. The rate of surplus value measures the surplus over costs, the average rate of exploitation measures expropriated over appropriated product, both in terms of abstract labour.
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	Food	Staal	Housing	Maraadaa	Superv.	Prim.	Second.
	Food	Steel	nousing	Mercedes	labour		
Food	0.10	0.20	0.30	0.20	0.25	0.10	0.00
Steel	0.30	0.10	0.20	0.30	0	0	0
Housing	0	0	0	0	1.00	0.50	0.25
Mercedes	0	0	0	0	0	0	0
Supervisory 1.	0.07	0.03	0.10	1.00	de la compañía		
Primary lab.	0.42	-0.09	0.40	0.70			
Secondary lab.	0.21	0.18	0.70	0.40			

Table 2		
Example of a 4-good-3-labour-economy	(Bowles,	Gintis)

We conclude by applying these tools to the example studied by Bowles and Gintis in their text (1977, p. 182). *Table 2* presents the figures.

Each column shows the inputs required to produce one unit of the corresponding output, thus each column represents a cost structure. "Mercedes" is a particular good in that it is not needed for production, neither of goods nor of labour. It is a pure luxury or "non-basic" (Sraffa) good. Housing is a basic good, although it is not needed in production, but it is needed for reproducing labour.

In order to compute the labour values of this economy using eq. (10), we remember that the first quadrant of *Table 2* is the C-matrix, the second is the B-matrix, and the third is the L-matrix. Setting the determinant to zero and finding the eigenvectors of eq. (10) results in

$\sigma = 0.38$	$\lambda_1 = 2.0$	$\vartheta_1 = 4.7$
	$\lambda_2 = 1.0$	$\vartheta_2 = 2.3$
	$\lambda_3 = 2.9$	if $\vartheta_3 = 1.0$
	$\lambda_{4} = 7.4$	

We have chosen the value of secondary labour as the numéraire. There are three kinds of labour characterized by different costs of reproduction. In this situation, in answer to Bowles and Gintis, it is not reasonable to attribute an equal worth to each hour. On the contrary, one hour of supervisory labour is worth 4.71 hours of secondary labour, because its reproduction costs so much more. All three kinds of labour combined create a surplus of 0.38 over cost. This is the case of heterogeneous labour.

Now let us assume that supervisory, primary and secondary labour are, in fact, homogeneous so that their costs are the same; but observed consumption does not correspond to these costs. More precisely, assume that in order to reproduce any kind of labour the inputs of secondary labour are required and that in addition due to social and

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political structures, primary and supervisory labour are participating in surplus product. In this case, the labour reproduction matrix B will be the following

$$\mathbf{B} = \begin{pmatrix} 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0.25 & 0.25 & 0.25 \\ 0 & 0 & 0 \end{pmatrix}$$

while actual consumption  $\overline{B}$  is represented by the second quadrant in *Table 2*. Together with the unchanged production matrices C, L this yields the following values:

$\sigma = 1.5$	$\lambda_1 = 0.96$	$\vartheta_1 = 1$
	$\lambda_2 = 0.55$	$\vartheta_2 = 1$
	$\lambda_3 = 1.60$	$\vartheta_3 \doteq 1$
	$\lambda_4 = 2.46$	

Again we have chosen the value of secondary labour as the numéraire.

This economy is more productive than the former, its rate of surplus value is higher, because labour is cheaper to reproduce. But exploitation differs for each segment. Using eq. (12), (13) we find

$$\overline{\mathbf{v}} = \begin{pmatrix} 1.837\\ 0.895\\ 0.399 \end{pmatrix}$$

so that

3

$$e_1 = -0.456$$
  
 $e_2 = 0.118$   
 $e_3 = 1.503$ 

The first rate of exploitation is negative, indicating that the supervisors consume more than they produce, they are part of the ruling class. Primary labour is exploitated at a relatively low rate of 0.12 (middle class), while secondary labour gives away all its surplus product 1.503. This is social segmentation of economically homogeneous labour and this is, we believe, what Bowles and Gintis intended to show. Their result is the same, we have only explicitly stated those conditions under which their result is valid: *The costs* of reproduction of the three segments must be the same and equal to the actual consumption of that segment which is taken as the standard of measurement.

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## References

1. BOWLES, S.-GINTIS, H.: The Marxian theory of value and heterogeneous labour: a critique and reformulation. Cambridge Journal of Economics, 1977, p. 173-192

2. MORISHIMA, M.: Marx's economics, a dual theory of value and growth. Cambridge, 1973

## ОТ РАЗНОРОДНОГО К АБСТРАКТНОМУ ТРУДУ И ОПРЕДЕЛЕНИЕ СЕГМЕНТАЦИИ У.-П. РЕЙХ

Одной из классических проблем трудовой теории стоимости является определение трудовой стоимости, если труд не однородный, а разнородный по качеству. В этом случае рабочее время не может функционировать мерой стоимости потому, что в экономике затрачивается труд разного качества. Приведение разных количеств рабочего времени к одной общей единице стоимости порождает понятие абстрактного труда, базирующееся на норме прибавочной стоимости, единой для разных качеств труда. Доказывается, что в противоположности Моришима, который отрицает возможность единой нормы эксплуатации можно дать дефиницию этой нормы так, что разнородность труда не представляет собой препятствие применению трудовых стоимостей.

Далее показывается, что норма прибавочной стоимости и норма эксплуатации не обязательно совпадают в действительных капиталистических системах. Первая из них основывается на издержках воспроизводства рабочей силы, а вторая учитывает действительное потребление. Издержки воспроизводства и действительное потребление различаются друг от друга из-за сегментации — социального и политического обособления разных групп рабочей силы. Сегментация, как правило, предполагает экономическую однородность рабочей силы. Так, рабочая сила негров и белых социально сегментирована в США, хотя с точки зрения издержек воспроизводства, т. е. количества товаров, необходимых для воспроизводства этой рабочей силы, однородны. Неравное распределение доходов в капиталистических странах указывает на то, что некоторые сегменты рабочей силы оплачиваются выше издержек воспроизводства и участвуют в потреблении прибавочной стоимости. Следовательно, нормы эксплуатации различны для разных сегментов рабочей силы. Они получают отрицательное значение, если данный сегмент рабочей силы потребляет больше стоимости, чем производит. Таким образом, различие между издержками воспроизводства и действительным потреблением весьма существенно в анализе распределения дохода внутри рабочего класса.



Acta Oeconomica, Vol. 23 (3-4), pp. 353-366 (1979)

# REVIEWS

# THE STATE OF THE RESEARCH IN MANAGEMENT AND ORGANIZATION IN HUNGARY

Bodies of the Hungarian Academy of Sciences are regularly analyzing the state of the art of important fields of science in which also recommendations are formulated for the development of these disciplines. Such reports have already been made among others on economics [1] and within it also on industrial economics and management. [2] This year the Department of Economics and Law of the Hungarian Academy of Sciences made an analysis of the state of the research on management and organization; this was discussed and approved by the Presidium of the Hungarian Academy of Sciences and adequate resolutions were passed.

Management and organization are such *practical* activities of extraordinary importance the systematization and *theoretical* elaboration of whose scientific bases are still in the stage of development all over the world and especially in Hungary.

## The scientific discipline

When characterizing the place and character of the discipline the situation analysis starts from the fact that the theory of management and organization is aimed at the investigation of such complex phenomena which can be approached with an aim at a certain completeness only through the body of knowledge of several scientific disciplines.

Problems of management and organization have always engaged not only men of practice, but also philosophers and scientists and for this activity achievements of the sciences of the time have always been utilized. Still, from the second half of the 19th century on, we can speak of a qualitative change. On the one hand, social demands suddenly increased towards management and organization under the effect of the aforementioned factors and, on the other hand, also because of applicable scientific achievements showed a similar development. *Marx's* system of ideas on the control and management of society and economy opened new perspectives. The development of economics, sociology, psychology and other social sciences as well as that of physical and technological sciences provided a growing and more abundant knowledge and tools which could be utilized in management and organization with great efficiency. Especially fertilizing were the ideas (in the works of *Weber, Taylor* and *Fayol*) which already analyzed and explained explicitly the activities of management and organization.

In the course of further development first of all their lead was followed by the endeavours aimed at investigating the *specific* features, methods and experiences as well as the *general and specific* laws of the activities of management and organization, furthermore at trying to *systematize* this knowledge as completely as possible. The scientific elaboration of management and organization problems and the development of various theories on them led to the accumulation and summarization of much knowledge very important for practice. *Theoretical frameworks for their systematization, however, have not yet fully developed* and they are characterized even at present by variety, changes, renewal and enrichment.

The general endeavour is aimed at a comprehensive examination of the entirety of management and organization and of all of its functions. Of course, the individual functions of management, among them tasks and methods of organization are processed also separately. The theory of organizations is often discussed as a special system of knowledge. Theory may examine the most general features of the activity of management and organization related, for example, to the work of management and organization basically depend on their *subject* (i.e. on the activity and organization they are aimed at), their phenomena, problems and methods are processed also accordingly differently.

The situation analysis emphasizes that the adoption and application of international experience in this field of science always requires serious adaptation activity, nevertheless this is the starting point for Hungarian practice and research activity. In consequence of deviating ideological starting points and the social determination of these activities the theory of management and organization has developed in a certain interrelation, but along separate ways under the conditions of capitalist and socialist societies and economies. But, despite the deviating social environments there are several common features to be found in both the processes constituting the subject of management and organization as well as in the objectives and tools of these activities. Keeping in view the differences mentioned above more international contacts and the widening of comparative investigations are therefore desirable also in this field.

# The theory of management and organization in Hungary

In the Hungarian practice of management and organization first of all German influence was felt before World War II. Some years after the liberation of the country, following the nationalization industrial centres and ministries did hard work in developing enterprise management and organization (planning, statistics, accounting, setting of working norms, etc.) and in adjusting them to socialist planned economy. Utilization of Soviet experience obtained a determinant role in both the enterprise sphere and the development of control and management methods of the economy, theoretical work also relied mostly on it. Independent research started, just as in many other branches of social sciences, from the mid-1950s. Demands for a theory of management and organization were more explicitly formulated in the mid-1960s.

Beginning with the preparation of the 1968 reform of the system of economic control and management in Hungary the development of this discipline was strongly stimulated, beside increasing enterprise independence, by a series of further factors, thus, organization and the development of the training of leaders. Similar developments in the USSR and other socialist countries and the strengthening of CMEA-cooperation in this field also contributed to the subject matter. The network of institutions and scientific associations dealing with organization and training of executives was considerably extended.

The 1970s were characterized by the coming to the fore of problems of management and organization, by a many-sided elaboration of these questions, by intensive publishing and scientific activities. At the same time, it also follows from the character of the discipline – as the situation analysis points out – that wide scope is given also to fashionable, superficial, pseudo-scientific writings.

The report evaluated also the scientific life of this field. It was stated that critique and scientific discussions are poor also here, as in many other fields of science. While a great number of conferences are held, first of all with propaganda purposes, real scientific meetings and discussions, critical reviews on books, deliberation on the merits of the scientific originality of dissertations on the occasion of awarding scientific degrees can be rarely met. For the evaluation of domestic performance organized processing of foreign experience and achievement and comparison are only slowly developing. Hungarian participation in international scientific life of this field is weak, some progress has been achieved only recently, within the CMEA. However, it can be stated even despite these limits of the bases of evaluation, that in scientific research and theoretical elaboration of the problems of management and organization considerable progress has been made also in Hungary; Hungarian literature and educational materials on these subjects are much richer than previously.

The level of management and organization in Hungary is according to this evaluation – strongly lagging behind the requirements and also behind the developed countries in many respects. Labour productivity is about half of that in the developed countries; this can be attributed partly to the lower technological equipment of labour, to natural conditions in some branches, but over and beyond that to a great extent to the unsatisfactory standards of management and organization. The development of management and organization by using and modernizing the scientific results is indispensable for improvement in the efficiency of production and in the modernization of production structure.

# **Research** tasks

The report points out some general guidelines and concrete directions for further research. It is stated that, beside the development of theory, research into the problems of management and organization should more efficiently serve the solution of our economic tasks and the raising of the standards of management and organization in both the

economic sphere and other fields of social life in coming years. With this in view research on management and organization theory

- should obtain more importance in the formation and practice of economic policy and the system of economic control and management as well as in that of the management of other social activities;

- should pay more attention to problems of the organizational system and intersectoral relations, to the revealing of inner and external (environmental) conditions of higher-level management organization, to the tools and methods of creating them;

- should better promote the raising of the level of management and organization in the individual enterprises and other organizations both in productive and non-productive spheres.

The successful realization of these tasks postulates

- more appropriate proportions between basic and applied researches, more frequent practical verification and faster utilization of research results. A certain increase in the proportion of exact theoretical, basic and summarizing research is needed in order that the elaboration of problems of individual special fields, researches of applied and development nature and practical work might rely on more solid bases. More frequent discussions, criticism and evaluations should promote separation of real scientific performance from superficial pseudo-scientific activity;

- the strengthening of systems approach and multidisciplinary approach in management and organizational research as well as theoretical summarizations, in the research on and dealings with problems of economic policy, economic control and management, in management and public administration. In these fields this means, at the same time, also greater consideration of the theoretical knowledge on management as well as of the phenomena of organizational life;

- there is much we can learn as regards management and organization. Procedures and methods widely spread abroad might be taken over from more developed (first of all capitalist) countries, but this always requires a thorough preliminary examination of domestic circumstances and adequate adaptation because of deviating socio-economic conditions. For this collecting recent foreign experiences, examination of their particularities with a view to applicability (resulting from social relations, the level of development and other differences), regular surveys and analyses of the domestic situation and conditions through wide-range empirical examinations are needed;

- with the enrichment of the armory of management methods more researches are needed concerning the local, sectoral, intersectoral and general socio-economic conditions of the efficient application of methods, the transfer of knowledge and the creation of higher standards of management and organization.

# Research basis and coordination

At the present there is no central basis for research dealing with topics of management in Hungary. Many institutes, institutions and enterprises of various types are dealing with such researches, having mainly the nature of application and development, mostly as business-like and profit-motivated units. No relevant quantitative increase of research capacities seems to be necessary at present. However, for a more efficient utilization and that the activities of research places of different types and financing should better serve the development of both theory and practice complementing each other

- a better orientation of researches and a wider division of labour and cooperation between research units, furthermore

- an increase to some extent of general purpose researches financed from the central budget are needed as against profit-motivated research and expert work.

This kind of work at research units financed from academic and other budgets should be intensified and university departments and institutes working in enterprise form should be given government orders for the solution of more comprehensive, demanding and longer term research tasks. It is expedient to establish a division of labour according to main fields of organization between research places for keeping up-to-date and developing enterprise organizational knowledge, for the processing and adaptation of international (and outstanding domestic) experience and for working out the conditions of application as well as for the spreading of this knowledge.

Several bodies and organizations are dealing with scientific work and coordination related to problems of management, which results from the nature of these activities. As regards key-issues of the development of this discipline and the transfer of knowledge a more purposeful division of labour and better cooperation are needed among these bodies and organizations.

The central organ responsible for this scientific discipline will be the Committee for Management and Organizations Theory to be set up within the Department of Economics and Law of the Hungarian Academy of Sciences. This Committe will be responsible for furthering cooperation among research units while continuously monitoring the field of science, and promoting the practical application of research results and the development of international scientific contacts.

The economic situation in Hungary and demands of the society urge for a definite improvement of management and organization in both the economy and other spheres of society. This is a highly complex task and when trying to find a solution it would be wrong either to under- or to over-estimate the role of science and research. Research along cannot bring about any changes but it is indispensable for a realistic evaluation of the situation and possibilities and for a proper identification of the tasks. Development of theory and analysis of practice are inseparably based on each other in this field. The situation analysis – and later measures based on it – wish to stimulate and further more rapid progress in this direction.

## References

- 1. Report on the state and tasks of economic research in Hungary. Acta Oeconomica, Vol. 17, No. 2 (1976) pp. 203-209
- 2. Research into industrial economics and management in Hungary. Acta Oeconomica, Vol. 16, No. 2 (1976) pp. 213-222

## F. FEKETE

# ACCOMPLISHMENT OF AND CHALLENGES FOR AGRICULTURAL ECONOMISTS WORKING AT THE NATIONAL LEVEL OF CENTRALLY MANAGED ECONOMIES\*

To undertake an account concerning the activity of agricultural economists working at national level in the centrally managed economies (CMEs\*\*) means also to face the old but straight challenge thrown out by the French reasoner *Chamfort* almost 200 years ago to the corps of economists with his ironic words: "The economists are like operating surgeons who dispose of sharp dissectors but their operating scalpel is notched and therefore they brilliantly carry out a necrotomy but they torture flesh." This paper endeavours to prove that agricultural economists working at the national level in CMEs have already performed successful activities and are ready in the future to do much in order that they and other people active in the sphere of economics should be acknowledged and kept in evidence not as "necrotomists" but as calculating, planning, constructing, developing competent masters of their profession.

# 1. Historical and ideological background

Roots of the ideology characteristic of agricultural economists working in the national institutions of the CMEs can be dated back exactly one and a half centuries to the beginnings of the organized movement of the working class and to the emergence of the Marxist theory of socialism. The ideological seeds of socialist agriculture were sown by the Communist Manifesto speaking about the "improvement of the soil generally in accordance with a common plan" as well as about "farming on collective account". *Marx* 

\*Based on a lecture delivered at the 17th Conference of the International Association of Agricultural Economists (IAAE) in Banff, Canada, Sept. 7, 1979.

\*\*On practical considerations, the author accepts the term "centrally managed economies" (CME) and means thereby the European countries belonging to the CMEA. Corresponding to the previously established List of Agenda of the Conference, the attention of the author is focussed on the activities of agricultural economists working in national organizations and in governmental institutions. His exposition is mostly based upon the situation prevailing in Hungary but he endeavours also to outline the general historico-theoretical characteristics as well as experience in other countries, mainly in the Soviet Union.

and *Engels* declared in the Manifesto about a school of socialist literature that it "disserted with great acuteness the contradictions in the conditions of modern production. It laid bare the hypocritical apologies of economists".

The role of *Lenin* was determinant in the construction of the theoretical model of socialist agriculture and in the establishment of its first practical types. From his works far-reachingly written about agrarian subjects which embrace a long period of time, one must first of all refer to the Agrarian Theses formulated in 1920 and to his relevant articles published in 1923 about cooperative subjects. Socialist agriculture was established in the Soviet Union in about one and a half decade after the October Revolution. In Hungary this process began in 1948 and was finished in 1961. The organization of socialist agriculture was established earlier in Bulgaria, at the same time in Czechoslovakia, while a short time later in the GDR and in Romania, than had been in Hungary. In Poland a step-by-step gain of the socialist sector of agriculture can be traced, nevertheless in this case we cannot yet speak of a completed socialist reorganization of agriculture.

The major characteristics of the socialist system of agriculture can be summarized as follows: collective ownership of land and of the other important means of production; organization of large-scale collective agricultural enterprises in the form of cooperative and state farms and, more recently, in the form of inter-firm organizations; application of farming systems based upon concerted enterprise plan; use of up-to-date technologies and scientifically founded production techniques in the large-scale farms under collective ownership; the approximation of incomes and living conditions of farm people to those of industrial workers i.e. to the income level and living standards of urban population.

Socialist agriculture was established and is further developing as a result of processes accompanied by multifarious social, economic, cultural and human problems. The requirement that agricultural production should rise in course of the socialist transformation period (including the years 1958–1961) stood in the focus of the agricultural economists' attention in Hungary. It was also an important objective in the period of socialist transformation that the evolving large-scale farm organization should result in a substantial and systematic increase of agricultural output. Today it is already proven that this task was accomplished. In course of the last 25 years the net value of agricultural production increased by 1.2 per cent yearly in Hungary and the average annual increase has amounted to 1.6 per cent in the recent 5 years. Simultaneously, mainly in course of the last decade personal incomes of labourers of the socialist large-scale farms increased more rapidly than the social average and the amount of personal income per capita in agriculture practically attained that of people working in other branches of the national economy.

The interrelations existing between economy and policy, which were intensively examined by Lenin, have a particular importance in the socio-economic system of socialism and we may add: in each modern social system, as well as in the activity itself of agricultural economists. According to his conclusions "policy is the concentrated expression of economy" on the one hand and "policy has a primacy against economy" on the

other. These general principles mean in the practice of economists' activity at the national level first of all that the socialist state deliberately formulates and sets the major economic objectives and also develops the relevant conditions for their implementation within the planned control and management of the national economy. The above quoted principles represent at the same time the "political approach" to economic problems which is nothing else but a firm effort to set out from the public interests of the whole population and to reconcile the interests of the diverse social groups.\*

Veritable milestones in the agriculture of the Soviet Union and of the European people's democracies as well as in the agricultural economic activities at national level were the Party and government decisions made between autumn 1953 and spring 1957 and the changes which started following them. The nature of these changes was described by E. S. *Machewicz* then minister of agriculture of the USSR in 1956. "... up to recent times the economic categories were quite carelessly treated in the activity of agricultural agencies and experts ... the recommended agrotechnical and other techniques were not evaluated from the aspect of economic efficiency ... no economically justified remarks were raised against the plans of crop structure or against the diverse recommended agrotechniques which were mechanically prescribed by the central institutions although in several cases they were inadequate for the farms."

In the Soviet Union and in the other CMEs development since 1956 can partly be marked by the accomplishments of the agricultural economists; like the new system of agricultural planning, and the increasing role of farm planning, reorganization of the state machine and tractor stations and the selling of the big machines to the kolkhozes (cooperative farms), gradual elimination of the compulsory delivery of agricultural produce and an increased role of the procurement (producer) prices, progress of the system of labour remuneration and a significant increase of the personal incomes of agricultural labourers, mainly of the kolkhoz (cooperative farm) members (including also the income originating in their household plot farms).

# 2. Achievements, possibilities – national economic planning and central control

National economic planning can look back to a past longer than half a century in the Soviet Union and longer than three decades in the other European CMEs. In the course of this period abundant experience accumulated, both the theory and practice of national economic planning as well as the activity of agricultural economists made progress. In addition to the general determinant characteritics also the particular condi-

\*The interrelations between economy and policy were treated at several conferences of the IAAE, first of all at the 13th Conference in 1967 and most directly in the paper by Rudolf Bicanic.

tions, state of development and the fundamental economic political trends of the diverse countries are reflected in the national economic planning of the CMEs.

An important element and one of the starting points of national economic planning is the assessment of domestic needs, of the demand in the country and in the world market. Facts indicate that in close connection with the national consumption habits characteristically exporter and importer countries can appear in respect of certain commodities. Thus e.g. Hungary is a beef exporting country where, at the same time, beef consumption is relatively low. It is well known that Hungary carries on extensive international trade and, therefore, when developing agriculture it is very important for the country to reckon with changes in the world economic situation which have an impact upon the CMEA as well as also upon the capitalist world market.

National economic planning and the central (government) economic control and management form an organic unity. Therefore, considerable changes resulted in the practice of national economic planning in Hungary owing to the reform of economic control and management elaborated in 1966 and introduced in 1968. This reform was a continuation of the same economic-political tendency which was expressed in the abolition of the compulsory delivery of agricultural produce to the state in 1956, in the earlier initiated easing of the rigidities of national economic planning and of the central control over the economy.

The reasons for and the positive effects of the reform of economic control and management are indicated also by the increase of agricultural production. Compared to the average of the preceding 5 years it increased by 20 per cent in the years 1971–1975. (A 15–16 per cent increase was envisaged in the national economic plan.) The increase of national income (by 35 per cent) and of industrial production (by 37 per cent) was also more rapid than envisaged for the same period; real wages per one earner rose by 18 per cent.

In recent years a new orientation has appeared in planning, a kind of systems approach which takes the intersectoral problems more emphatically into account. Thus e.g. it builds up a "production block" from agriculture, the food industry, the production of agricultural machinery, of fertilizers, etc. The method was initiated in the USSR and also spread to other CMEA member countries. It is essentially aimed at a better accounting for complementary problems of economic planning including among others social planning or planning of technical changes besides those mentioned above.

Today Hungarian agricultural economists acting in diverse positions of national economic planning and in the central control organs operate under the conditions of the so-called intensive phase of economic progress. In this phase the triple watchword of efficiency, quality and competitiveness formulates the most important requirements. These requirements are to be satisfied under conditions becoming always more and more exacting since a) the acreage of the country suitable for agricultural production is constantly diminishing; b) the number of agricultural earners radically diminishes and particular measures are needed for good performance in peak periods; c) up-to-date large-scale agricultural production is still young and costly; d) agrarian protectionism

regained its strength all over the world again and competition became keener in the markets abroad. Under such severe conditions the export orientation of agricultural production as well as the profitability of exports are to be increased and the efficiency and structure of productive activities must be improved. In spite of the fact that compared to the past the growth rate of investments decreased, the planners reckon in the long-term development plans with an annual 4-5 per cent increase of large-scale agricultural production.

# 3. Problems, urgent tasks - pricing

Pricing and price planning are organic parts of the system of national planning while price policy is part of economic policy. National economic plans and prices can also be considered in the CMEs as interlinked means of central control over the economy.

In the sphere of pricing, economists working at the national level construct by means of calculations and models so-called price centres (calculated prices). In quantitative respects each price centre is determined by the amount of net income surpassing costs in the calculations, i.e. by the distribution of net social income among the diverse branches (products) of the economy. The types of calculated prices are distinguished according to the principles of coordinating inputs (costs) and net incomes. The price centres, the calculated price-types are created with great simplifications and therefore their weaknesses are first of all the following ones: a) they do not reckon with the fact that the application of a new price necessarily alters the produced and consumed quantity of the diverse products and thereby the quantity of inputs per unit of output of the respective produce also changes; b) calculated prices from inputs; c) they do not reflect the demand and supply relations of the diverse products. Because of these and other (political, social, etc.) reasons calculated prices are considered only as a starting point in price planning.

Prices play in practice their parts well when they are assessed under the combined impact of production costs, value-judgements of the markets (users) and state (social) preferences. Enforcement of this triple requirement in price policy is not a simple task and it cannot be solved without compromises and contradictions. In the CMEs a mixed price mechanism asserts itself, i.e. centrally fixed or maximized prices, prices moving between established limits, centrally guaranteed (minimum) prices and "free" market prices exist simultaneously. The reform of economic control and management in Hungary increased this latter sphere of prices. At the same time about 60 per cent of the purchasing of agricultural products is performed by the state and/or by the cooperatives at centrally fixed prices.

Agricultural economists of the CMEs are of the opinion that the most important economic condition for the planned increase of agricultural production is the establishment of a producer price level which covers the costs of production and maintains also a net

income rate suitable for the producer enterprises. Producer prices play, namely, a key-role in the indication of social interests and needs (demands) to the producers. The role and the scope of the diverse subsidies (subventions, dotations for investments and operation) are very large in Hungary, rendering thereby the economic survey and efficient stimulation of producing enterprises more difficult.

In most of the CMEs a great difficulty is caused by the fact that a particular gap, a certain kind of reversed two-level phenomenon exists between the producer and consumer prices of agricultural products. This gap is bridged over by a sophisticated system of dotations granted by the state to the processing industries and for the retailing sector (commerce). Great importance is attributed to the stability of consumer prices from the aspect of the planned development of people's living standards. Simultaneously with the consideration of this principle consumer prices of the agricultural products should better reflect the costs of production, and relations between consumer and producer prices should become more pronounced. This requirement was distinctly formulated in the professional circles of economists earlier and have been unanbiguously expressed in economic-policy measures recently taken. Also consolidation of the connection between the domestic price system and the world market prices became a question of the day in Hungary.

Adequate coordination of the orienting and income distributing functions of prices presents a sophisticated task also for the economists of the CMEs. The scientific foundation and the planned development of a territorially differentiated system of agricultural producer (purchasing) prices sets a particular task for the Soviet agricultural economists. On the territory of the Soviet Union there are 73 price-zones for the purchasing of milk and 62 ones for cattle on foot. There are 27 price-zones for wheat on the territory of the RFSSR.

# 4. Prospects and long-term challenges – agrarian organization and decision making mechanism

While the main supporting-pillars of the socialist agrarian system invariably remain the state farms (sovkhozes) and the cooperative farms (kolkhozes), also new types of agricultural organizations emerge and gain ground in the agriculture of almost each CME.

At present, or as they formulate it: "in the new implementation stage of the cooperative plan of Lenin" agricultural inter-firm organizations and agro-industrial unions are gaining ground at a very rapid rate in the Soviet Union. All kolkhozes and more than half of sovkhozes take part in those organizations. The total number of agricultural inter-firm organizations was 7000 at the beginning of 1977 and 1200 agro-industrial unions operated among them. At the beginning of 1978 the number of these inter-firm organizations amounted already to 7800. An important task is for agricultural economists working in the Ministry of Agriculture and in the other national bodies to survey the activities and experiences of these interfirm organizations. The activity of agricultural

economists is directly motivated also by the fact that the operation of the new agricultural and agro-industrial organizations is related to the development of the central management of agriculture. Elaboration of basic theoretical principles of the so-called automated system of national economic and sectoral management is also of great importance. At the plenary session of the Central Committee of the CPSU held in July 1978 critical conclusions were drawn in the statement that the Gosplan and the Ministry of Agriculture did not develop so far into centres which are able to control and coordinate the activities related to specialization and concentration of agricultural production.

The system of agro-industrial complexes (APK) under formation represents a new organizational basis of large-scale socialist agriculture in Bulgaria. Specialization and concentration of production rapidly develop in the GDR. The so-called organizations for cooperation in crop growing – in cooperation with the agro-chemical centres – represent a new type of specialized agricultural enterprises and at the end of 1975 they were responsible for 88 per cent of the total agricultural acreage cultivated in the GDR.

At the beginning of the 1970-es, production systems came into existence in Hungary as new organizations of agricultural inter-firm cooperation. Already 67 production systems were active at the end of 1977 and 86 per cent of the state farms as well as 78 per cent of farmers' cooperatives were cooperating in these systems. Four production systems are operated in large-scale corn production; there exists a certain division of functions among them but their competition is not fully eliminated. The production system implements general collaboration in respect of the supply with means of production, elaboration and continuous development of production technology, organization of marketing and professional training for one or more organically interlinked lines of agricultural production. Coordinating and exzrnsion services are performed by the socalled system master or gestor farm. Partner farms are joining the former. Farms may voluntarily join the system most suitable for them; each large-scale agricultural enterprise is allowed, of course, to be member of several production systems at the same time. The partner farms can establish the systems centre in the form of joint venture. The production systems, however, can operate also as simple associations and the functions of the systems centre are performed in this case by a separate section of a larger state farm of farmers' cooperative.

The partner farms pay for the services of the systems centre a fee in cash or in kind which consists of a base fee and of a contracted part of the increase of yield. Within the economic concerns of the systems centre and the partner farms also contrasting tendencies can be observed. The former is mainly interested in the quantitative increase of yields, while the latter is interested in the increase of the enterprise's income.

With an experimental character four agro-industrial unions were established in Hungary in 1976. These organizations are created with the cooperation of agricultural producing enterprises, of food industrial firms and of agro-commercial agencies for the complex utilization of resources in a given zone.

All the aforesaid facts well indicate that a number of particular agricultural economic problems originate in these new organizational formations of socialist agriculture.

Development problems of the decision-making mechanism energetically take up the attention of agricultural economists in the CMEs. Herbert A. *Simon*, 1978 Nobel-prize winner in economics, states that instead of procedural rationality a substantive rationality prevailed in the economic decisions. Starting out from this standpoint he intensively studies the applicability of operations research, programming, simulation as apparatuses of technical procedures for economic decision-making. The attention of Marxist economists extends also to the social and political dimensions of the economic decision-making mechanism. At the 14th Conference of the IAAE the democratic character of planning and the consolidation of democratism of economic decisions made at national level was also treated in detail.

One of the most important sources of the vitality of the socialist system of agriculture is represented by its "multisectorality" and by its richness in respect of the types and diverse sizes of the enterprises. Even in these days the household-plot farms of the cooperative (kolkhoz) members and the relatively small-scale agricultural production carried out by workers and employees – partly as their hobby – represent an organic complementing of the activities of the large-scale collective agricultural organizations managed as enterprises.

It was already earlier obvious for agricultural economists of the CMEs that the members of kolkhozes (farmers' cooperatives) are not only labourers but also co-owners and even associate undertakers in one and same person. The principle of consolidating cooperative democracy remains in prominence, but also the problem of enterprise democratism of the state-owned enterprises has come recently into the focus of attention. Socialist democracy in the firm or enterprise should and can be studied also from national economic aspect. The agricultural economists of the CMEs are to concretize the essential character of socialist ownership and to promote the assertion of this essential character in economic decisions made in the decisive spheres of increasing the collective owner's role of workers in the utilization of means of production and of surplus produce as well as in selecting, true to principles, the determinant factors of personal incomes.

## **Bibliography**

BALASSA, A.: A magyar népgazdaság tervezésének alapjai. (The bases of national economic planning in Hungary) Budapest, 1979. Közgazdasági és Jogi Könyvkiadó.

ERDEI, F.: An idea and its realization. The New Hungarian Quarterly. 1968. No. 30

9\*

ERDEI, F.: A XX. Kongresszus útmutatása az agrárgazdasági és üzemszervezési munka számára (Guidance provided by the XXth Congress for agricultural economics and farm management) Agrárgazdasági és Üzemszervezési Közlemények. 1956. No. 1.

Essays on Economic Policy and Planning in Hungary. (Ed. by István Friss.) Budapest, 1978. Corvina Kiadó.

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- FEKETE, F.-HEADY, E. O.-HOLDREN, B.R.: Economics of Cooperative Farming, Budapest-Leyden, 1976. Sijthoff – Akadémiai Kiadó.
- FRISS, I.: Ten years of economic reform in Hungary. Acta Oeconomica, Vol.20. Nos 1-2 (1978), pp. 1-19
- MARX, K.-ENGELS F .: Collected Works. Progress Publishers, Moscow, 1976. Vol. 6
- LENIN: Selected works. Progress Publishers, Moscow, 1967, Vol. 3

Magyar Tudomány, 1978. No. 6

- Межхозяйственная кооперация и агропромышленная интеграция в сельском хозяйстве. Москва, 1978. Издательство Колос.
- ORI, J.: Pricing of agricultural products and foodstuff in Hungary. Acta Oeconomica, Vol. 17, No. 1 (1976), pp. 83-91

Политическая экономия. Учебник 2. Москва, 1976. Политиздат.

SCHULZE, H. G.-TRUTZSCHLER, A.: Zur Kombination der Produktion landwirtschaftlicher Erzeugnisse und ihrer Be- und Verarbeitung beim Übergang zur industriemäßigen Produktion in der Landwirtschaft der DDR. (On the combination of agricultural production and of processing agricultural products in the course of transition to industrial production in the agriculture of the GDR) Wirtschaftswissenschaft, 1976. No. 6

SIMON, H. A.: On how to decide what to do. Economic Impact, 1979. No. 3

SZABO, K.: Factory democracy and political economy. Acta Oeconomica, Vol. 13, No 1 (1974), pp. 1-18

Вопросы Экономики, 1979. No. 2

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Acta Oeconomica, Vol. 23 (3-4), pp. 367-372 (1979)

# **BOOK REVIEWS**

WILCZYNSKI, J.: Comparative monetary economics, London, 1978. The Macmillan Press Ltd., 270 p.

As the author says: "The purpose of this book is to identify the distinctive charcteristics of the monetary system under modern capitalism and socialism, to examine their differences, unexpected striking similarities and paradoxical developments, and to bring the relations between them into a clearer focus." He outlines his basic attitude, too: "The field of monetary economics lends itself to extremist polemics in a myopic support of one system and a narrow-minded condemnation of the other. The author's well-meaning intention throughout this book is to be objective and preserve neutrality. But he does not hesitate to bring out strengths and weaknesses of one system particularly if they contrast with those of the other side."

This is an ambitious venture and one can say that, after all, Professor Wilczynski has attained his goal.

When dealing with the main elements of the monetary system under capitalism and socialism, his method of analysis is composed of a description of the element (category, institution) in question (its components, its functioning, its development) illustrated with aggregate statistics, its theoretical background (including the Marxist category in question in capitalism), a brief summary of the discussions in the comtemporary socialist literature, and at last a comparative analysis.

The topic is treated in fifteen chapters, each of which contains the said comparison. In the first chapter (Money) the author deals with the nature and role of money, monetary theory, the functions of money and the supply of money. The second chapter (Banking) presents the devel-

and structure of banking, banking opment control, the international banking institutions, the relations of capitalist banks to socialist countries and the socialist banking in the capitalist world. In the third chapter (Monetary policy and control) the author examines the role of this kind of policy together with its limitations, too. The fourth chapter's (Price formation and value) main topics are: the market mechanism and planning, prices and value, the quantity theory and the functions of prices. The fifth chapter deals with the foreign trade prices and the terms of trade. In the three subsequent chapters (6: Capital and investment, 7: Credit, 8: Interest) the author surveys the role of capital, the characteristics of domestic and foreign investments, the domestic credit systems, the capitalist-socialist credit relations, the issues of credit risk and insurance and the functions performed by interest. Thereafter four chapters deal with the questions of foreign exchange and foreign trade (9: The balance of payments, 10: Bilateral and multilateral settlements, 11: Exchange rates and convertibility, 12: Gold). In these the author analyzes the structural features of the balance of payments, coping with disequilibria in both systems, the state of affairs concerning bilateralism and multilateralism, the role of exchange rates and the degrees of convertibility, the actual monetary functions of gold.

The last three chapters (13: Stability, equilibrium and fluctuations, 14: Inflation, 15: World monetary cooperation) contain some final conclusions and a convincing argument to reshape the international monetary system. The author examines the difference between monetary and market equilibrium, the characteristics of fluctuations in both systems, the sources of inflation and speaks against the prejudices in the world

monetary cooperation and for a "transideo-logical" common effort.

This is a useful book. Its main uses may be listed as follows:

It can serve, to a certain degree, as an introduction for socialist readers into the present capitalist monetary system and thinking as it is. This kind of use is, however, limited to a definite circle of readers. In general, competent monetary theorists, foreign exchange brokers and the like in the socialist countries acquired already a comprehensive knowledge of the capitalist monetary theories, monetary systems and monetary policies, and books dealing with such topics are available here. In spite of this, the book of Professor Wilczynski serves as a piece of authentic evidence for those, who - without a deeper knowledge of the system in question - overestimate the efficiency of some types of institutions and/or some instruments. I think of the realistic evaluations of the author, like these: "A central bank's actions (under capitalism - M. R.) may be frustrated by private banks and other financial institutions prompted by private profit and the traditional suspicion of government intervention." (p. 29) The "newly discovered socialist fascination with the "flexible use" of interest contrasts with the rather declining role of interest in capitalist countries". (p. 132) ... "experience shows only too well, that the market does not necessarily respond in the opposite direction to a reduction in interest rates etc." (p. 137). Convincing arguments of this kind can be found, among others, in connection with the free fluctuation of exchange rates (p. 152) and the exaggeration of the extent of convertibility of capitalist currencies (pp. 183-184).

The book can give a better understanding of capitalism for the non-socialist readers too, in an analogous sense as stated above. According to my personal experience, a part of western businessmen and academics tend to look at the capitalist system as a completely free market-system, with perfect competition. The author outlines the limitations of the functioning of market forces.

I think that the greatest merit of the book is that it serves as a valuable guide for non-socialists to the socialist monetary system. Surely, this is not the first western book dealing with the topic, but I think it is a pioneer work in the sense that it makes great (and not unsuccessful) effort to interpret correctly the basic professional "philosophy" which the socialist monetary system is built upon. The author's approach and method of criticism can be well seen from the following quotation: "In Western literature, socialist prices are sometimes described as "irrational". This is an over-simplified narrow view and can be supported only to a limited extent. In general socialist prices are not "scarcity" or "efficiency" prices and so are irrational by the capitalist market standards. In some cases these prices are erroneously established ... and to this extent such prices must also be regarded as irrational - by any standards. But in most cases socialist prices are carefully planned ... as to perform desired functions. These functions involve objectives which are logical and legitimate in the context of central economic planning and the social system in force. Rationality is not an absolute concept there can be as many rationalities as there are objectives." (p. 75)

In addition, the parts of the book dealing with socialism are instructive even for the socialist reader for being comments by a rather objective outside observer.

As further values of the book I have to mention the impressive quantity of *socialist* literature quoted by the author, and his clear style. Concerning the depth of the analysis I have the impression that the chapters discussing international issues (foreign exchange, foreign trade), are more elaborate than those dealing with the categories of the domestic economy. In several parts of the book the author gives rather comprehensive "inventories" of causes of phenomena, of possible developments etc.

As an example I refer here to the author's list of causes of socialist import prices being *above* and socialist export prices *below* the (capitalist) world market levels. Causes in the first bracket: large socialist purchases, payment in counter-sales or in clearing, price absorption of interest charges, compensation for the extra costs of the exporter, inflationary mark-ups and political considerations. Causes of the lower export prices, according to the author, are: an urgent socialist need for hard currency, breaking into competi-

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tive markets, overcoming discrimination, inferior quality, delivery and servicing terms, poor marketing techniques (pp. 86-88).

There are, however, some questionable elements in the approach of Professor Wilczynski. These can be grouped under the following headings:

- objects of comparison,

- uncertainties,

- neglect of the evolution side,

- the structure of the book.

As for the objects of comparison, the general impression is that the author tends to compare the pure, abstract model of the capitalist free market economy with that of a strictly centralized socialist economy. Of course, he extends then his analysis to the actual systems (limitations of the market-forces in capitalism, respectively the increased flexibility of management in socialism), but these latter are mostly outweighted (in volume) by the former.

Even in this connection the analysis is characterized by a certain impartiality; in fact, he sometimes over-estimates the regulating power of the market on one side and the controlling power of the central authorities on the other. Speaking only of the socialist system, he overestimates the possibilities of the central control of the cashless settlements (p. 5), the regulating power of the cash-plan (p. 15), the power of the banks (p. 24) etc. To be fair, one can find in the book the refutations of such statements, too; as the following example shows: "... the state bank has little scope for action independent of the planning authorities... (p. 61)".

As for the uncertainties, in general one can say that the authors' conclusions become uncertain in some cases where his different sources (or the different theories) are in contradiction. Speaking of money supply (in socialism) he is hesitant to accept demand deposits as part of the mass of money merely because the *former* socialist literature denied this. Thus, when speaking of money supply, monetary policy and the like, he mostly restricts his comments to the area of cash – and this brings insufficient results (pp. 4, 5, 52 and ff. etc.). He is uncertain as well when dealing with the limits of personal demand: whether those appear on the (commodity-) supply side (p. 5) or on the side of money-supply (p. 53) or whether demand is regulated by the incomes and price policy (p. 100). Clearly, the last is the proper view.

My next comment concerns his not taking into consideration the organic character of the evolution of the socialist monetary system. The uninformed and superficial reader of the book may acquire the impression - clearly in contrast to the very intentions of the author - that during a certain period the socialist monetary system was "undeveloped" (even "primitive") and then some eminent theorists and decision-makers reformed the system, made it more flexible, more up-to-date, more "developed". The fact is - and this is not emphasized enough in the book - that the system was "developed", even "up-to-date" already in the thirties or fifties - as measured by the standards of the economic and political environment at that time. It ceased to be an adequate solution when and where the openness of the economy increased and (mostly at the same time) the country had to switch from the extensive type of growth to the intensive one. Thus the change of the system was a necessity, determined by the change in the economic environment.

Turning to the last category of my comments: whoever tried to compose a book of this kind cannot ignore the tremendous difficulty in finding an adequate structure for the work. Dealing with the elements of the monetary system one has to choose a clear, consistent line of reasoning and all this is made even more difficult by the differences of the systems under examination. There hardly exists a best structure for this topic. However, it seems to me that the structure chosen by Professor Wilczynski belongs to the less fortunate ones. As the brief summary of the contents (as outlined above) shows, it is of an encyclopaedic character. That is, the different topics are dealt with as (quasi) separate entities and their connections are established only by short references (and by merely repeating some statements in different chapters). Even the sequence of the chapters seems questionable to me with so definite separation of price (4.5) and inflation (14), foreign trade prices (5) and other topics of the international relations (9, 10, 11, 12, 15), money (1) and investment, credit, and interest (5, 6, 7). It is surprising that the author

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does not start the comparison with the money creation in both systems (indeed, he neglects this topic entirely) although this could furnish a suitable framework for the whole survey and would facilitate explanation of some interrelations which now remain in the background.

However, taking everything into consideration I am convinced that the strengths of the work of Professor Wilczynski are by far outweighing its weaknesses and the author thus rendered a good service to the mutual understanding and cooperation of the two systems.

#### M. RIESZ

TRZECIAKOWSKI, W.: Indirect management in a centrally planned economy. System constructions in foreign trade. Warszawa, 1978. PWN-Polish Scientific Publishers, Warsaw-North-Holland Publishing Co., Amsterdam-New York-Oxford, 279 p.

In his book the author summarizes his experiences of a teamwork. The team set the objective of perfecting the management system of socialist economy, and indicated the basic programmes in the following:

- to determine, for the various decision systems in planned economy, the place and role of economic computation;

- to set up general optimising models suitable for the planning of the whole economy, which lay particular emphasis on foreign trade;

- to put forward, with the aid of these models, such organization, planning-, and management suggestions, which can be put into practice with the hope of success in Poland.

In accordance with these tasks, the contents of the book are divided into three parts:

Part One discusses the possible versions of decision systems under the conditions of a socialist planned economy. It assumes that differences may be found mainly in the power structure and management system that provide for the execution of the plan. Thus it classifies the possible systems according to two viewpoints: 1. Which preference is decisive: the central one or the peripheral? 2. At which level is decision made on the allocation of resources? Relying upon these two criteria, the book discusses the advantages and disadvantages of the various decision systems.

The technique of decision-making is different depending upon the time horizon. Namely, the longer the time horizon, the larger the sphere of changes introduced into the system of production, and consequently, the greater is the flexibility in decision-making, and the greater the role of the high-level decision-making centres. According to the time horizon the author mentions perspectivic (10-20-years), medium-term (5-years), short-term (1-year) plans and operative plans. The connexion of these is handled and described as a multi-level process, and decisionmaking as a multi-plane process from the point of view of the central plan.

The necessity of efficiency analysis first arose in foreign trade, when decision had to be made on the following questions: which products should be exported; should a given article be produced at home, or should it be imported; on which foreign market should a certain product be sold or bought; where should a certain investment amount be placed in order that the export or the import substituting production capacity may grow at the fastest rate.

In the development of the analysis of foreign trade efficiency two consecutive phases are distinguished; first, the development of various export efficiency coefficients upon the basis of different partial criteria; second, the construction of a comprehensive macro-model which comprises both exports and imports as a part of a global plan model. Although the introduction of the various labour and material efficiency indicators into the foreign trade planning was an important step, yet a much more comprehensive approach to foreign trada optimization is necessary. Namely, depending upon which partial indicator is used, different and contradictory orders of priority are obtained.

Therefore, in *Part Two* the author discusses the various foreign trade optimization models. Among them, the model optimizing the geographical distribution of foreign trade includes a few products and a few foreign markets. It assumes for known, in physical units of measurement, the quantity of each product earmarked for export or import by the plan, the selling and

purchasing price per physical unit of each product, expressed in the currency of each market, as well as the saleable and purchasable maximum quantity of each product on each market, in other words, demand and supply. Finally, it assumes for known, with the exception of one market, the export-import balance prescribed in the plan in the currency of each market. The problem facing us is to find out, how much to sell and how much to buy of the various products, under the given conditions, and on which market, so that on the market for which no balance has been prescribed in the plan the surplus should be the highest possible one.

This is, theoretically, a simple linear programming problem. Yet, since considering about 100 thousand products and about 100 foreign markets, it will contain several million variables and hundreds of thousands of constraints, it is practically an unsolvable task even for a computer.

In the model optimizing the trade volume and product structure only one foreign market is considered, it prescribes the balance of foreign trade, and assumes for known, in physical units of measurement, the domestic demand for each product for consumption and investment purposes, the maximum production capacity available for each product, as well as the maximum saleable and purchasable quantity, in physical units, of each product on the foreign market. The products are independent of each other: there is no input-otput relationship between them. Considering the production, exports and imports of each product as variables, the above-mentioned conditions present the system of inequality conditions of the linear programme. And the objective function (to be drawn up with the aid of the cumulative labour cost coefficient) is supplied by the cumulative labour cost of the total domestic production. The model yields an efficiency criterion, which is useful as an instrument of decentralized decision-making in every case when it can be assumed that the products are independent of each other, without any constraint between them.

After that, a similar model is constructed, with the difference that an input-output type of technological relationship may exist among the products. It is the first model to provide a profit critierion for foreign trade efficency computations,

It has to be mentioned that at the time of model construction the decomposition processes of *Kantorovich*, *Dantzig* and *Wolfe* were still unknown.

The next step would be the amalgamation of the models optimizing volume, product structure and geographical distribution. The construction of such a model has been enabled by the decomposition process.

The general assumptions of the short-term model optimizing the volume, product structure and geographical distribution of foreign trade are identical with those of the preceding one. The starting-point is the necessity to satisfy the final consumption demand and the investment needs laid down in the central development plan, while minimizing the socially necessary labour input. The level of production and that of foreign trade are the variables, while the final demands for consumption and investment and the foreign trade balance are given constants. Production capacities are considered to be constant in the short run. This approach allows the use of various technologies for the production of a certain product, as well as the existence of by-products.

The most important conclusion drawn from this model may be that it fully confirms O. Lange's earlier statements, according to which economic efficiency computations and a reasonable price system are not only necessary but also possible in a planned economy. This means that efficiency considerations are not incompatible with the preferences of the central plan. On the contrary, if they are determined reasonably, they will multiply the active assertion areas of preferences. The method of direct instructions exclusivel used so far in planning can be replaced or complemented by an indirect control process functioning with prices and profit criteria, without prejudicing the preferences of the central plan.

*Part Three* deals with the role of theoretical models in their practical application.

Careful application of the results of model analysis in establishing a decentralized decision and management system has proved the correctness of the theory. There exist even in the most centralized socialist economy such fields of activities in which the decision possibilities of the central plan are limited. Foreign trade is the field where constraints are the strongest: demand on the foreign market, costs of foreign exchange production, quality requirements, terms of delivery, etc. are all conditions fully or partly independent of the central plan. In foreign trade decisions must be made in accordance with changing conditions, which do not leave time for submitting a report to the central organ and waiting for the instruction to arrive through the intermediate decision-making organs. Here lies the necessity of decentralization of decision-making.

However, the important role of foreign trade in the production of national income requires not merely decentralization, but also the making of reasonable decisions from the macro-economic aspect. The system of efficiency analysis used in planning has not stimulated sufficiently the initiative role of the executive level, therefore, a system of incentives, too, had to be introduced. In the middle of 1966 a new premium system based on the profit maximization criterion was introduced in Poland, which remained in force in principle up to 1976. The system was first introduced only in the manufacturing industry and with foreign trading companies. Its functioning was one more important step towards the estab-

lishment of a complex system of indirect management of the Polish economy.

The following step of discovery was the replacement of the calculative approach (calculative prices) with such a financial system which is positively able to stimulate enterprises for a behaviour consistent with the principle of a reasonable allocation of resources. This was put into practice in the form of two experiments, namely, in the pharmaceutical industry (POLFA), and in ship-building (ZPO). In both cases the role of exports was important. The POLFA-experiment carried out in 1967 was the most successful one. The results achieved were spectacular: they have proved that there are important reserves in labour productivity, which can be demonstrated by the application of an adequate control system. The ZPO-experiment was worked out in 1969-1970 but put to practice only in 1971. That year was politically a turning-point, in which solutions were subject rather to political considerations than to theories. In spite of that, the experiment revealed a number of problems and helped in gathering an amount of useful experience for future work. After that followed a new step: the general reform of producer prices (1st January 1971). This enabled in Poland the extension of efficiency analysis, which finally came to comprise the entire economy.

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Acta Oeconomica, Vol. 23 (3-4), pp. 373-380 (1979)

# BIBLIOGRAPHY

# HUNGARIAN REVIEWS ON FOREIGN ECONOMIC BOOKS\* IN 1975–1976\*\*

# CANADA

FISCHER, L. A.-UREN, P. E.: The new Hungarian agriculture. Montreal-London, 1973. McGill-Queen's University Press. 138 p. - Rev.: Gy. Enyedi - Acta Oeconomica. 1976. Vol. 17. No. 3-4. pp. 358-360.

## CZECHOSLOVAKIA

ŠUJAN, I.-KOLEK, J.-GERGELYI, K.: Prognosticky model ekonomiky ČSSR. Bratislava, 1974. Alfa. 206 p. – Rev.: Zs. Nyáry – Szigma. 1975. Vol. 8. No. 4. pp. 303–305.

# FEDERAL REPUBLIC OF GERMANY AND WEST BERLIN

- BARTHOLOMAI, B.: Entwicklung und Struktur der Staatsinvestitionen seit 1960 und der Stand der längerfristigen Investitionsplanung. Berlin, 1973. Duncker und Humblot. 55 p. – Rev.: G. Vásony – Pénzügyi Szemle. 1975. Vol. 19. No. 8. pp. 704–706.
- BOKERMANN, H.: Sozio-ökonomische Kriterien als Masstab für den relativen Entwicklungsstand von Ländern und Sektoren, dargestellt am Beispiel Lateinamerikas. Berlin, 1974. Duncker und Humblot. 71 p. – Rev.: Gy. Szilágyi – Statisztikai Szemle. 1975. Vol. 53. No. 6. pp. 666–667.
- HAGEMANN, M.-KLEMENČIČ, A.: Die sozialistische Marktwirtschaft Yugoslawiens. Schriften zum Vergleich von Wirtschaftsordnungen. Stuttgart, 1974. Gustav Fischer. 310 p. – Rev.: J. M. Kovács – Acta Oeconomica. 1975. Vol. 15. No. 2. pp. 264–268.
- MALERI, R.: Grundzüge der Dienstleitungsproduktion. Berlin-Heidelberg-New York, 1973. Springer Verlag. 162 p. – Rev.: E. Arányi – Statisztikai Szemle. 1975. Vol. 53. No. 1. pp. 94–95.
- SAETER, M.: Europa politisch. Berlin, 1974. Berlin Verlag. 307 p. Rev.: G. Izik-Hedri – Acta Oeconomica. 1976. Vol. 17. No. 2. pp. 222–223.

\* Translations into Hungarian are included too.

\*\* Compiled by Mrs. I. Dobi (Library of the Institute of Economics, Hung. Acad. Sci.). This is a contimation of de similar bibliography for the years 1973–1974 published in Vol. 16. No. 3–4. pp. 385–389.

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10\*

# FRANCE

- GUINDEY, G.: Mythes et réalités de la crise monétaire internationale. Paris, 1973. Delmas et Co. 120 p. – Rev.: E. S. – Pénzügyi Szemle. 1975. Vol. 19. No. 1. pp. 84–86.
- MALINVAUD, E.: Az ökonometria statisztikai módszerei. (Méthodes statistiques de l'économetrie.) Budapest, 1974. Közgazd. és Jogi Kiadó. 804 p. – Rev.: Zs. Nyáry
  Statisztikai Szemle. 1975. Vol. 53. No. 1. pp. 80–82. – Rev. 2.: J. Paizs – Szigma. 1975. Vol. 8. No. 1. pp. 72–74.

# GERMAN DEMOCRATIC REPUBLIC

- BLEI, A.: Finanzierung der volkseigenen Industrie. Berlin, 1974. Verl. Die Wirtschaft. 140 p. – Rev.: E. S. – Pénzügyi Szemle. 1975. Vol. 19. No. 11. pp. 946–947.
- [ФЕДОРЕНКО, Н. П.-БУНИЧ, П. Г.-ШАТАЛИН, С. С.] FEDORENKO, N. P.-BUNITSCH, P. G.-SCHATALIN, S. S.: Effektivität in der sozialistischen Wirtschaft. (Социалистические принципы хозяйствования и эффективность общественного производства.) Berlin, 1972. Die Wirtschaft. 270 p. – Rev.: E. S. – Pénzügyi Szemle. 1975. Vol. 19. No. 12. pp. 1026–1027.
- JAHN, W.-VAHLE, H.: A faktoranalízis és alkalmazása. (Die Faktoranalyse und ihre Anwendung.) Budapest, 1974. Közgazd. és Jogi Kiadó. 231 p. – Rev.: Cs. Zágon – Szigma, 1975. Vol. 8. No. 4. pp. 302–303.
- KLOSE, G.-KOSS, M.: Sozialistische Forschungskooperation. Berlin, 1973. Die Wirtschaft. 118 p. Rev.: E. S. Pénzügyi Szemle. 1976. Vol. 20. no. 4. p. 320.
- KUCZYNSKI, J.: A növekedés vége? (Das Gleichgewicht der Null.) Budapest, 1975. Kossuth Kiadó. 95 p. – Rev.: Bankszemle. 1976. Vol. 20. No. 5. pp. 80–81.

# **GREAT BRITAIN**

- BELL, D.: The postindustrial society. London, 1974. Heinemann. 507 p. Rev.: Zs. Kelen – Közgazdasági Szemle. 1976. Vol. 23. No. 2. pp. 242–246.
- COFFEY, P.-PRESLEY, J.: Europe: towards a monetary union. London, 1972. Fabian Society. 24 p. – Rev.: V. Falubíró – Pénzügyi Szemle. 1975. Vol. 19. No. 6. pp. 530–532.
- CROUCH, R. L.: Macroeconomics. London, 1972. Harcourt Brace Jovanovich International Ed. 425 p. – Rev.: A. Pap – Szigma. 1975. Vol. 8. No. 2–3. pp. 218–219.
- HEWETT, E. A.: Foreign trade prices in the CMEA. London, 1974. Cambridge University Press. 196 p. – Rev.: I. Major – Acta Oeconomica. 1975. Vol. 14. No. 2–3. pp. 285–288.
- KAUFMANN, A.: A döntés tudománya. (The science of decision-making, an introduction to praxeology.) Budapest, 1975. Közgazd. és Jogi Kiadó. 315 p. – Rev.: Bankszemle. 1976. Vol. 20. No. 2. pp. 79–80.

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- MYRDAL, D.: Against the stream. Critical essays on economics. London, 1973. Macmillan. 336 p. – Rev.: R. Andorka – Statisztikai Szemle. 1975. Vol. 53. No. 12. pp. 1274–1275.
- MYRDAL, G.: Korunk kihívása: a világszegénység. (The challange of world poverty.) Budapest, 1974. Gondolat. 633 p. Rev.: Bankszemle. 1975. Vol. 19. No. 8. pp. 74–75. Rev. 2.: J. Vásárhelyi Statisztikai Szemle. 1975. Vol. 53. No. 7. pp. 766–767.
- PINDER, J. and P.: The European Community's policy towards Eastern Europe. London, 1975. PEP. 45 p. – Rev.: G. Izik-Hedri – Acta Oeconomica. 1976. Vol. 17. No. 2. pp. 223–224.
- POLANYI, G.: Short-term forecasting; a case study. London, 1973. Institute of Economic Affairs. 39 p. – Rev.: J. H. – Pénzügyi Szemle. 1975. Vol. 19. No. 12. p. 1021.
- SAUNDERS, Ch.: From free trade to integration in Western Europe? London, 1975. PEP. 107 p. – Rev.: G. Izik-Hedri – Acta Oeconomica. 1976. Vol. 17. No. 2. pp. 223–224.
- WILSON, A. G.: Urban and regional models in geography and planning. London, 1974. Wiley. 418 p. – Rev.: S. Kádas – Szigma. 1976. Vol. 9. No. 3. pp. 182–183.

# JAPAN

OHKAWA, K.-HAYAMI, Y. (ed.): Economic growth. The Japanese experience since the Meiji era. Proceedings of the Second Conference, Japan Economic Research Center, June 26–July 1, 1972. Vols 1–2. Tokyo, 1973. The Japan Economic Research Center. 680 p. – Rev.: Zs. Nyáry – Szigma. 1976. Vol. 9. No. 4. pp. 253–255.

## THE NETHERLANDS

- BRABANT, P. van: Essays on planning trade and integration in Eastern Europe. Rotterdam, 1974. University Press. IX, 310 p. – Rev.: I. Major – Acta Oeconomica. 1975. Vol. 14. No. 1. pp. 115–117.
- HOLTROP, P. W.: Money in an open economy selected papers on monetary policy, monetary analysis and central banking. Leiden, 1972. Stenfert Kroese N. V. 380
   p. – Rev.: E. S. – Pénzügyi Szemle. 1975. Vol. 19. No. 10. pp. 867–868.
- TINBERGEN, J.: Income distribution analysis and policies. Amsterdam-Oxford- New York, 1975. North-Holland. - American Elsevier. 167 p. - Rev.: E. Frigyes - Acta Oeconomica. 1975. Vol. 15. No. 3-4. pp. 441-448.
- ZOUTENDIJK, G.: Mathematical programming methods. Amsterdam, 1976. North-Holland. 500 p. – Rev.: S. Kádas – Szigma. 1976. Vol. 9. No. 4. pp. 255–257.

## NORWAY

FRISCH, R.: Kvantitatív és dinamikus közgazdaságtan. (A selection on quantitative and dynamic economics.) Budapest, 1974. Közgazd. és Jogi Kiadó. 382 p. – Rev.: J. Móczár – Szigma. 1975. Vol. 8. No. 2–3. pp. 215–217.

# POLAND

- FLESZAR, M.: A világ gazdaságföldrajza. (Geografia ekonomiczna swiata.) Budapest, 1974. Kossuth Kiadó. 484 p. – Rev.: F. Homolya – Statisztikai Szemle. 1975. Vol. 53. No. 7. pp. 764–766.
- FRACKIEWICZ, J.: A munka szervezése és vezetése. (Organizacja pracy i kierownictwa.) Budapest, 1973. Közgazd. és Jogi Kiadó. 355 p. Rev.: E. Noszkay Közgazdasági Szemle. 1975. Vol. 22. No. 2. pp. 288–289. Rev. 2.: I. Rubóczky Vállalatvezetés-vállalatszervezés. 1975. Vol. 7. No. 3. p. 164.
- POHORILLE, M.: Fogyasztási modell a szocializmusban. (Model konsumpcji w ustroju socjalistycznym.) Budapest, 1974. Kossuth Kiadó. 254 p. – Rev.: Bankszemle, 1975. Vol. 19. No. 5. pp. 76–77.
- WELFE, W.: Forecasting industrial models in centrally planned economies. Łódz, 1974. Inst. Ekonometrii i Stat. Uniw. Łódźkiego. 51 p. – Rev.: Zs. Nyáry – Szigma. 1976. Vol. 9. No. 3. pp. 180–182.

# ROMANIA

- MICOLESCU, A.: A mezőgazdasági termelés koncentrációja és szakosítása. Bukarest, 1975. Ceres Könyvkiadó. 228 p. – Rev.: L. Csete – Gazdálkodás. 1976. Vol. 20. No. 4. pp. 58–60.
- VĂCĂREL, I.: Finanțele şi cerintele dezvoltarii agriculturii pe plan mondial. Bucureşti, 1976. Ed. Politica. 299 p. – Rev.: Pénzügyi Szemle. 1976. Vol. 20. No. 11. pp. 874–875.

## SOVIET UNION

- [БРЕГЕЛ, Е. Й.] BREGEL, Е. J.: A polgári gazdaságtan új irányzatai és a mai kapitalizmus. (Критика буржуазных учений об экономической системе современного капитализма.) Budapest, 1974. Kossuth Kiadó. 336 p. Rev.: G. Szántó Közgazdasági Szemle. 1975. Vol. 22. No. 3. pp. 413–416.
- ГАВРИЛЮК, В. В.: Экспорт капиталистических отношений в развивающиеся страны. Минск, 1973. Наука и Техника. 270 р. Rev.: P. Vas-Zoltán Magyar Tudomány. 1975. Vol. 82. No. 2. pp. 121–122.
- [Двадцать пять] XXV лет СЭВ итоги, задачи, перспективы. Москва, 1974. СЭВ Секретариат. 366 р. Rev.: K. Pécsi Acta Oeconomica. 1975. Vol. 14. No. 1. pp. 109–113.

- [ДЕМЕНЦЕВ, В. В.–ВИНОКУР, Р. Д.] GYEMENCEV, V. V.–VINOKUR, R. D.: A termelési egyesülések önálló elszámolása és pénzügyei. (Хозрасчет и финансы производственных объединений.) Budapest, 1975. Közgazd. és Jogi Kiadó. 137 p. – Rev.: L. Árva – Pénzügyi Szemle. 1975. Vol. 19. No. 11. pp. 943–944.
- [ИНОЗЕМЦЕВ, Н. Н.-МИЛЕЙКОВСКИЙ, А. Г.-МЕНЬШИКОВ, С. М. итд.] INOZEMCEV, N. N.-MILEJKOVSZKIJ, A. G.-MENSIKOV, Sz. M. i t.d. (Red.): A mai monopolkapitalizmus politikai gazdaságtana. (Политическая экономия современного монополистического капитализма.) Budapest, 1974. Kossuth Kiadó. 708 p. – Rev.: I. Bauer – K. Szabó – Közgazdasági Szemle. 1976. Vol. 23. No. 2. pp. 232–242.
- [КОЗЛОВА, О. В.-КУЗНЕЦОВ, И. Н.] КОZLOVA, О. V.-КUZNECOV, I. N.: A termelésirányítás tudományos alapjai. (Научные основы управления производством.) Budapest, 1974. Kossuth Kiadó. 292 р. Rev.: I. Rubóczky Vállalatvezetés-vállalatszervezés. 1976. Vol. 8. No. 1. pp. 50–51.
- [КОРМНОВ, Ю. Ф.] KORMNOV, Ju. F.: A KGST-országok termelési szakosítása és kooperációja. (Специализация и кооперация производства стран СЭВ.) Budapest, 1974. Közgazd. és Jogi Kiadó. 385 p. – Rev.: L. Udvarhelyi – Közgazdasági Szemle. 1975. Vol. 22. No. 7–8. pp. 998–1002. – Rev. 2.: Bankszemle. 1975. Vol. 19. No. 12. pp. 72–73.
- КУЧКИН, П. Е.-МОРОЗОВ, Н. Н.: Чистый доход социалистического общества. Москва, 1974. Финансы. 168 р. – Rev.: A. R. – Pénzügyi Szemle. 1975. Vol. 19. No. 9. pp. 784–786.
- ЛАВРУШИН, О. И.: Кредит в социалистическом обществе. Москва, 1974. Финансы. 192 р. – Rev.: A. R. – Pénzügyi Szemle. 1976. Vol. 20. No. 2. pp. 156–158.
- ЛИСИЧКИН, Г.: Что человеку надо? Москва, 1974. Изд. Советсквая Россия. 191 р. – Rev.: L. Szamuely – Acta Oeconomica. 1975. Vol. 14. No. 2–3. pp. 284–285.
- MA3AHOBA, M. Б.: Территориальные пропорции народного хозяйства СССР. Москва, 1974. Изд. Наука. 206 р. – Rev.: Z. Antal – G. Wirth – Közgazdasági Szemle. 1975. Vol. 22. No. 9. pp. 1108–1110.
- [MOPO3OB, Л. Ф. ит. д.] MOROZOV, L. F. i t.d. (Red.): A NEP tapasztalatai a Szovjetunióban. (Исторический опыт КПСС в осуществлении новой экономической политики.) Budapest, 1975. Kossuth Kiadó. 330 p. – Rev.: G. Tolnai – Közgazdasági Szemle. 1976. Vol. 23. No. 1. pp. 111–120.
- [ОСАДЧАЯ, И. М.] OSZADCSAJA, I. М.: Keynestől a neoklasszikus szintézisig. (От Кейнса к неоклассическому синтезу.) Budapest, 1976. Kossuth Kiadó. 235 p. – Rev.: Bankszemle. 1976. Vol. 20. No. 12. pp. 71–72.
- Проблемы формирования и использования фонда развития производства. Минск, 1973. Наука и Техника. 248 р. – Rev.: A. R. – Pénzügyi Szemle. 1975. Vol. 19. No. 3. pp. 257–259.
- РЫБАКОВ, О. К.: Экономическая эффективность сотрудничества СССР с социалистическими странами. Москва, 1975. Мысль. 272 р. Rev.: L.

Drechsler – Acta Oeconomica. 1976. Vol. 17. No. 2. pp. 217–220. – Rev. 2.: L. Drechsler – Közgazdasági Szemle. 1976. Vol. 23. No. 11. pp. 1379–1382.

- СЕНЧАГОВ, В. К.-ОСТАПЕНКО, В. В.-МИЛЯЕВ, В. А.: Амортизационный фонд в условиях интенсификации производства. Москва, 1975. Финансы. 192 р. Rev.: A. R. Pénzügyi Szemle. 1976. Vol. 20. No. 11. pp. 877–879.
- Теоретические проблемы управления социалистической экономикой. Москва, 1974. Мысль. 408 р. Rev.: A. R. Pénzügyi Szemle. 1975. Vol. 19. No. 12. pp. 1022–1024.
- ФАДДЕЕВ, Н. В.: Совет Экономической Взаимопомощи. Москва, 1974. Экономика. 375 р. – Rev.: J. Kozma – Acta Oeconomica. 1975. Vol. 15. No. 1. pp. 101–104. – Rev. of the Hungarian ed.: J. Kozma – Közgazdasági Szemle. 1976. Vol. 23. No. 2. pp. 227–231.
- ФЕДОРЕНКО, Н. П.-БУНИЧ, П. Г.-ШАТАЛИН, С. С.: In German translation... See under German Democratic Republic
- ЧЕТЫРКИН, Е. М.: Статистические методы прогнозирования. Москва, 1975. Статистика. 184 р. – Rev.: S. Nagy – Statisztikai Szemle. 1976. Vol. 54. No. 11. pp. 1135–1137.
- ШЕРМЕНЕВ, М. К.: Финансовые резервы в расширенном воспроизводстве. Москва, 1973. Изд. Финансы. 208 р. – Rev.: A. R. – Pénzügyi Szemle. 1975. Vol. 19. No. 10. pp. 862–865.
- ЯКОВЕЦ, Ю. В.: Цены в плановом хозяйстве. Москва, 1974. Экономика. 224 р. Rev.: A. R. – Pénzügyi Szemle. 1975. Vol. 19. No. 7. pp. 617–620.

# SWITZERLAND

- BOMBACH, G.: Die Inflation, als wirtschafts- und sozialpolitische Frage. Basel, 1973. Verl. Helbing und Lichtenhan. 35 p. – Rev.: E. S. – Pénzügyi Szemle. 1975. Vol. 19. No. 12. pp. 1024–1025.
- HABERLER, G.: Economic growth and stability. Zürich, 1975. Verl. Moderne Industrie. 254 p. – Rev.: E. S. – Pénzügyi Szemle. 1976. Vol. 20. No. 11. pp. 876–877.
- KLÜGL, P.: Die Rolle der Termingelder bei der Geldschaffung. Zürich, 1972. Schulthess Polyr. Verlag. 12 p. – Rev.: E. S. – Pénzügyi Szemle. 1975. Vol. 19. No. 2. pp. 174–175.

## UNITED STATES

- ACKOFF, R. L.: Operációkutatás és vállalati tervezés. (A concept of corporate planning.) Budapest, 1974. Közgazdasági és Jogi Kiadó. 203 p. Rev.: J. Móczár Szigma. 1975. Vol. 8. No. 1. pp. 74–75.
- ADELMAN, I.-MORRIS, C. T.: Economic growth and social equity in developing countries. Stanford, 1973. Stanford Univ. Press. 257 p. – Rev.: R. Andorka – Szigma. 1976. Vol. 9. No. 1–2. pp. 81–82.

- CAIRNCROSS, A.: Control of long-term international capital movement. A staff paper. Washington, 1973. The Brookings Institution. 104 p. Rev.: L. Á. Pénzügyi Szemle. 1976. Vol. 20. No. 5. pp. 398–399.
- CHURCHMAN, C. W.: Rendszerszemlélet. (The systems approach.) Budapest, 1974. Statisztikai Kiadó. 230 p. – Rev.: Z. Botka – Statisztikai Szemle. 1975. Vol. 53. No. 8–9. pp. 897–900.
- CROSSER, P. K.: Prolegomena to all future metaeconomics: formation and deformation of economic thought. St. Louis, Miss. 1974. Warren H. Green. 196 p. - Rev.: A. Madarász - Acta Oeconomica. 1975. Vol. 14. No. 1. pp. 119–120.
- FARKAS, R. P.: Yugoslav economic development and political change. The relationship between economic managers and policy-making elites. New York, 1975. Praeger. 133 p. – Rev.: K. A. Soós – Acta Oeconomica. 1975. Vol. 15. No. 3–4. pp. 454–457.
- GALBRAITH, J. K.: Economics and the public purpose. Boston, 1973. Houghton Mifflin Co. 337 p. – Rev.: A. Giday – Pénzügyi Szemle. 1975. Vol. 19. No. 3–4. pp. 441–443. – Rev. 2.: L. Zelkó – Közgazdasági Szemle. 1975. Vol. 22. No. 6. pp. 788–799.
- GRZYBOWSKI, K. (ed.): East-West trade. New York-Leiden, 1973. Dobbs Ferry A. W. Sijthoff. 307 p. – Rev.: G. Izik-Hedri – Acta Oeconomica. 1976. Vol. 17. No. 2. pp. 220–221.
- HAMBLIN, R. L.-JACOBSEN, R. B.-MILLER, J. L. L.: A mathematical theory of social change. New York, 1973. Wiley. 237 p. Rev.: R. Andorka Szigma. 1976. Vol. 9. No. 4. pp. 252–253.
- KOPLIN, H. T.: Microeconomic analysis, Welfare and efficiency in private and public sectors. New York, 1971. Harper and Row. 337 p. – Rev.: A. Pap – Szigma. 1975. Vol. 8. No. 2–3. pp. 217–218.
- MARER, P. (ed.): US financing of East-West trade. The political economy of government credits and the national interest. Bloomington, Ind. 1975. International Development Res. Center. 442 p. – Rev.: A. Köves – Acta Oeconomica. 1976. Vol. 17. No. 1. pp. 106–108.
- McKINNON, R. I.: Monetary theory and controlled flexibility in the foreign exchanges. New Jersey, 1971. Princeton University. 38 p. – Rev.: A. V. N. – Pénzügyi Szemle. 1976. Vol. 20. No. 6. p. 480.
- MENSONIDES, J.-KUHLMAN, J. A.: The future of inter-bloc relations in Europe. New York, 1974. Praeger. 217 p. – Rev.: A. Inotai. – Acta Oeconomica. 1976. Vol. 16. No. 1. pp. 110–112.
- MILES, L. D.: Értékelemzés. (Techniques of value analysis and engineering.) Budapest, 1973. Közgazdasági és Jogi Kiadó. 460 p. – Rev.: I. Rubóczky – Vállalatvezetés – Vállalatszervezés. 1975. Vol. 7. No. 2. p. 106.
- NEUMANN-WHITMAN, M. von: Policies for internal and external balance. Washington, 1970. Princeton University. 54 p. – Rev.: A. V. N. – Pénzügyi Szemle. 1976. Vol. 20. No. 1. p. 76.

- PRESTON, R. S.: The Wharton annual and industry forecasting model. Philadelphia, 1972. Wharton School, University of Pennsylvania. 321 p. Rev.: Zs. Nyáry Szigma. 1976. Vol. 9. No. 1–2. pp. 82–84.
- RUMMEL, R. J.: Applied factor analysis. Evanston, 1970. North-Western University Press. 617 p. – Rev.: R. Andorka – Statisztikai Szemle. 1976. Vol. 54. No. 7. pp. 753–755.
- STARR, M. K.: Rendszerelméletű termelésvezetés, termelésszervezés. (Production management systems and synthesis.) Budapest, 1976. Közgazdasági és Jogi Kiadó. 618 p. – Rev.: R. Rét – Magyar Tudomány. 1976. Vol. 83. No. 11. pp. 663–664.
- THEIL, H.: Principles of econometrics. New York, 1971. Wiley. 736 p. Rev.: L. Hunyadi Szigma. 1976. Vol. 9. No. 1–2. pp. 78–80.
- TREML, V. G.: Input-output analysis and the Soviet economy. An annotated bibliography. New York, 1975. Praeger. 180 p. Rev.: S. Szalay Acta Oeconomica. 1976. Vol. 16. No. 2. p. 228.

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# BOOKS RECEIVED\*

Adroddiad Blynyddol 1978-79. Annual Report. Aberystwyth, 1979. The National Library of Wales. 112 p.

- BABANASZISZ, S.-DENKE, G.: A tudományos-technikai forradalom és a munkások (Scientific-technological revolution and the workers). Budapest, Közgazdasági és Jogi Könyvkiadó, 1979. 389 p.
- BEREND, I.: Eszközigényesség és fejlesztési politika (Capital intensity and development policy). Budapest, Közgazdasági és Jogi Könyvkiadó, 1979. 299 p.
- BOGÓ, R.: Hungary and the developing countries. (A historical analysis of Hungary's foreign trade with the developing countries.) Budapest, Institute of World Economics of the Hungarian Academy of Sciences, 1979. 73 p.
- EHRLICH, É.: Japán: a felzárkózás anatómiája (Japan: the anatomy of closing-up). Budapest, Közgazdasági és Jogi Könyvkiadó, 1979. 312 p.
- FRANK, I.-PEARSON, CH.-RIEDEL, J.: The implications of managed floating exchange rates for U.S. trade policy. Monograph series in finance and economics, 1979–1. New York, 1979. New York University. 69 p.
- KEMENES, E. (ed.): Les relations économiques Est-Ouest dans la perspective internationale: analyses Franco-Hongroises. Documents de la IV<sup>éme</sup> Recontre Paris-Budapest organisé les 24,25 et 26 avril 1979 à Paris. Budapest, 1979. Conseil Scientifique Hongrois d'Économie Mondiale. (Tendances dans l'économie mondiale, No. 29)
- KISS, J. (ed.): Agricultural development strategy in the developing countries. Budapest, 1979. Institute for World Economics of the Hungarian Academy of Sciences. (Studies on developing countries. No. 103)
- LANTOS, I.-Mrs. LŐRINC, ISTVÁNFFY, H.: A nemzetközi valutáris kapcsolatok fejlődésének új tényezői (New factors in the development of international monetary relations). Budapest, Közgazdasági és Jogi Könyvkiadó, 1979. 465 p.
- LAVIGNE, M.: Les économies socialistes soviétique et européennes. 3<sup>e</sup> éditon revue et mise a jour. Paris, 1979. Armond Colin. 437 p.\*\*
- MADARASI, A. (ed.): Vállalati jövedelemszabályozás vállalati gazdálkodás 1979. (Enterprise income's control – enterprise management 1979). Budapest, Kossuth Kiadó, 1979. 96 p.
- ROMÁN, Z. (ed.): Industrial development and industrial policy. Proceedings of the Second International Conference on Industrial Economics, Székesfehérvár, Hungary. Budapest, 1979. Akadémiai Kiadó. 427 p.\*\*
- SULYOK, B.: Gazdaságirányítás és pénzügypolitika. Válogatott írások (Economic control and financial policy. Selected writings). Budapest, Közgazdasági és Jogi Könyvkiadó, 1979. 334 p.

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- SZENTES, T.: A brief survey on the theories of international trade. Budapest, 1979. Institute for World Economics of the Hungarian Academy of Sciences. (Studies on developing countries, No. 102).
- TÖMPE, I.: Struktúraátalakítási beruházási döntések (Decisions on investments aiming at structural changes). Budapest, Közgazdasági és Jogi Könyvkiadó, 1979. 327 p.
- UDVARHELYI, L.: Politika és gazdaság a kelet-nyugati kapcsolatokban (Economics and politics in East-West relations). Budapest, Kossuth Kiadó, 1979. 273 p.

# AUTHORS

Béla CSIKÓS-NAGY, see Vol. 21, No. 3

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HU ISSN 0001-6373

Index: 26.033