

Institut de sociologie; Colloque sur les reformes et mecanismes economiques en Europe Orientale.Bruxelles,8-9/X/70.

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INSTITUT DE SOCIOLOGIE

(Fondé par Ernest Solvay)

CENTRE D'ETUDE DES PAYS DE L'EST

Bruxelles 5, le

44, Avenue Jeanne - Tél.: 48.81.58

COLLOQUE SUR LES REFORMES ET MECANISMES ECONOMIQUES EN EUROPE ORIENTALE

(8 et 9 octobre 1970)

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INSTITUT DE SOCIOLOGIE

CENTRE D'ETUDE DES PAYS
DE L'EST

CENTRE NATIONAL POUR L'ETUDE
DES ETATS DE L'EST

REFORMES ET MECANISMES ECONOMIQUES EN EUROPE ORIENTALE
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Colloque organisé à l'Institut de Sociologie, les 8 et 9 octobre 1970.
(avenue Jeanne, 44 - 1050 Bruxelles).

ECONOMIC MECHANISM AND PRICE POLICY

Professor B. CSIKÓS-NAGY.

ECONOMIC RATIONALITY AND ITS DEFINITION.

Non-Marxian economists like to use the reasoning that economic rationality has no place in the Marxist doctrine. Should this be true, how can we explain the economic challenge offered by the socialist countries to the capitalist world? The socialist countries have set themselves the objective to catch up with and even overtake the industrially most developed capitalist societies in per capita production. Realistically to fulfil this target, however, socialist society must make more efficient use of its available productive sources and expand its economy in a more perfect process of structural transformation, than the capitalist societies. Whether or not this objective is realistic may be open to doubt but the endeavour towards economic rationality expressed in it is incontestable. And if this is so, the only explanation is that economic rationality is differently interpreted in capitalism and in socialism.

The theoretical schema of market economy synthetises economic rationality in price automatism. The price functions as a competitive price and as the system which signals economic decisions. Consumers' preferences on the side of demand, profit maximizing on the supply side, relying on the allocative role of price, ensure balanced economic development. It is true that such a theory of market economy cannot be fitted into a socialist economy. In most socialist states prices are being, as far as possible, freed from the control of the market and distribution is withdrawn from under the control of prices. The price shaping role of the market is being substituted by an administrative price control, the allocative role of prices by a rationing system for the means of production. In this framework the monetary system is separated from the international foreign currency mechanism and the money basically assumes the function of accounting. This, in fact, lies behind the theory of non-Marxian economists when they state that economy in a socialist society develops under the influence of technocratic trends, and that administrative planning relying on economic balances (both value and physical balance-sheets) exerts control over the economy by their synthesis.

Management in socialist society is based on planned economy. In the theory of planned economy rationality is the sum total of scientifically founded state planning and state control. Socialist economy is organised according to the following hypotheses :

- Profitability measured at the microeconomic level exists side by side with efficiency measured at the macroeconomic level. While profitability measured at the microeconomic level appraises economic efficiency in the system of price and cost relations which are valid for the enterprises, efficiency measured on the macroeconomic level produces a system of valuating (shadow) prices in an organic interrelation of the different productive branches. This latter regard inputs in their social dimensions and takes consideration, among other things, of such social costs of the reproduction of labour which are not charged against the enterprises, and of such infrastructural investments which are not embodied in the enterprises capital. Therefore, the rank of the efficiency of the productive branch as measured at the macroeconomic level, by necessity, differs from the rank measured according to the enterprises' profitability.

- Market spontaneity (price automatism) leads to cyclic development and partial unemployment. Economic progress of such nature is incompatible with a socialist society. The economic organisation in socialism is built upon well defined social norms, as are for instance steady economic growth, full employment, and a steady raising of the living standard based on distribution according to work done.

- Economic relations established between countries are interstate relations. The comparative advantages are expressed in macroeconomic commodity structures providing for mutual benefits and formed by interstate agreements and not in a system of occasional commodity transactions.

To ensure economic efficiency, to maintain the social norms and to achieve an organised international division of labour, consistent and purposeful economic policy is indispensable. These tasks must be fulfilled through central planning and the planned control of national economy which, naturally, impose constraints upon market spontaneity. These constraints are basic and fundamental since social consciousness diverts the economic processes, in almost all of their essential relations, from the direction determined by market spontaneity. It would be difficult, if not impossible, to say in what way the economy of a socialist country would develop without planned state control; the only thing that is certain is that without planned state control such economies would not be viable.

It would seem therefore that the criteria of economic rationality as they are interpreted in capitalism and socialism, are clearly determined. In capitalism these criteria determine the attitudes in the microeconomic sphere and they are epitomized in the market model. In socialism, on the other hand, they determine the attitude in the sphere of macroeconomy and are synthesised in the plan model. The two kinds of rationality may be regarded also as the maximization of the enterprises' returns in the first case, and the maximization of the returns of national economy, in the second. Non-Marxian economists generally contest the very existence of the category of an independent national economic efficiency and, therefore, contest economic rationality in socialism. Many Marxist economists, again, hold that to enforce economic efficiency the controlling role of the market must be abolished. These differences of opinion have led to the interpretation of the plan model based on the antagonism between plan and market.

However, the changes which have taken place, due to objective reasons, in the mechanism of both capitalist and socialist economy in recent decades may arouse justified doubts as to the simplification of the approach to the problem of economic efficiency.

It is common knowledge that not only has the rate of economic development in the capitalist countries been speeded up considerably since the Second World War but that its cyclic fluctuations, too, have diminished. This fact can be attributed to the changes which have taken place in the capitalist economic mechanism and the activation of national economic policies. But this same fact raises doubts whether the price actually is the main regulator in the capitalist countries in the division of economic resources. Many are of the opinion that the capitalist economy of our days is no longer identical with the pure market mechanism schema which, nevertheless, constitutes the logic of the system. The question arises how far the control system can be characterised by its own logic ?

The pure schema of the theory relies on the generalisation of a historical period in which the state had been a exogenous factor in economy and in which, accordingly, market price automatism could act as a comprehensive regulator. It was the intensification of the antisocial features of market spontaneity which activated the state's economic policy and created an anticyclic economic policy. Concentrating our attention upon what is going on on the markets and disregarding the state's role in controlling market conditions - which in many cases - means constraining the market mechanism - we would be unable to find explanations for the economic development of most industrially advanced capitalist countries. Major structural transformations take effect with the active cooperation of the state. On the one hand, price is not the sole distributor of economic resources, on the other the price, which in fact exercises this duty, evolves under the effect of the national economy policy.

With a slight exaggeration, we might say that market mechanism continues to be the technical instrument in the control of economic processes, but the principles of control are no longer the same as assumed in the pure schema of the theory. In other words : structure creates prices rather than prices create structure. This holds even for countries where the state abstains from direct interference. Even under such circumstances the "invisible hand" is that of the state rather than that of the market.

Let us now take account of the changes which have taken place in the economic mechanism of the socialist countries. The socialist economic reforms will convince us of the fact that the recognition of the objective necessity of state planning and state control over national economy does not in itself determine the mechanism of socialist economy. While the theory of the antagonism of plan and market expresses only one - although still predominant - view, the following circumstances must also be considered :

- Marx envisaged a socialism on the pattern of ancient communism in which commodity economy is replaced by a barter economy since in his opinion commodity production will cease to exist when capitalist production discontinues. When, in the historically short period which is known as war communism, the

Soviet Union had in fact established a barter economy, experience convinced Lenin of the need to reinstate the previous system and he expressed this in the following very concise way : "Life has proved us wrong". Nevertheless, thinking in terms of barter economy has left its imprint on socialist planned economy.

- Socialist societies have emerged in countries which in their development according to the capitalist ways lagged behind the industrially most advanced nations.

- Competition between countries living under dissimilar socio-economic systems prompted the socialist societies to make up for the handicap of less developed forces of production and to catch up with the economies of their more advanced competitors. Too rapid industrial growth, however, caused imbalances. The correct approach to the problematics of a planned control of national economy is made more difficult exactly by the fact that in the actual system of socialist planned economy the elements of planned control and of deficiency economy appear intermingled.

The experience amassed during the decades of the socialist reorganisation of economy supported the realisation that rational producer's and consumer's behaviour have their own objective criteria which must not be disregarded lest the efficiency of national economy should be in jeopardy. This realisation is the leaven which generates socialist economic reforms and sets out in our day the main lines to be followed in the perfecting of the socialist economic mechanism. In socialist countries the economic reforms are based on a dual hypothesis according to which a) no purposeful economic development is conceivable without state planning and planned control; b) there is no rational economic behaviour without the operation and the supervisory function of the market mechanism.

In all this the coordination of macro- and microeconomic rationality (comes to expression), ultimately to appear as the synthesis of plan and market. The socialist countries synthetise plan and market in different ways; this is one of the reasons why the economic mechanism of the socialist countries cannot be characterised by a uniform model of economic control. Socialist planned economy has general features which are common to all, and specific features which vary from one country to the next. The common characteristics are the public ownership of the means of production, central planning and state control over the national economy, the latter relying upon defined social norms.

Specific traits are the concrete tasks of socialist construction and thus the different elements of the socialist economic mechanism, since the societies of the different nations widely differ as to 1) the standard of their productive forces; 2) the conditions under which their economies develop; and 3) due partly to the objectively dissimilar conditions prevailing - as to the way in which they synthetize plan and market.

Since in the national systems of socialist planned economy the common and specific elements are blended, no country can adopt the economic mechanism applied by the other in every one of its elements. Each country must

evolve a system which best meets her own socio-economic requirements, and adapt planning and control accordingly. One of the determinant factors for any national system of the socialist economic mechanism is the intensity of the country's dependence on foreign trade. According to the degree of dependence on foreign trade we distinguish larger national economies more enclosed and smaller ones more open. The more open a socialist economy, the more organically is its economic efficiency linked with the efficiency of foreign trade. This, again, sets some defined requirements for the economic mechanism to meet. In an open economy the economic policy must retain sufficient flexibility to respond to changes taking place in world economy. Setting out from this fact, we shall disclose in the following the interrelated problems of the economic mechanism and the price policy in the way they are true for Hungary's socialist economy. It should be noted that Hungary has the "openest" economy among the European socialist countries. We shall focus our attention on the new features which have emerged with the economic reform, including some which in the present period of the evolution of the new economic control system could not be fully unfolded yet.

THE MAIN FEATURES OF HUNGARY'S ECONOMIC AND PRICE REFORM.

Hungary introduced a comprehensive economic reform in 1968 in which the national economy is still Government coordinated but control no longer relies on obligatory plan indices. The mechanism of planning and control have been separated. While planning quantifies the economic processes in a kind of balance in their complexity, control is a planned regulation of the market.

To control national economy, the state uses the instruments of the policy of production and distribution, of financial policy, of price and income policy. The system of control, accordingly, is one in which physical and non-physical, financial and non-financial, direct and indirect regulators are applied side by side. However, whenever economic policy is in a position to choose, it prefers the non-physical instruments to physical ones, the financial regulators to price and income regulators and, in the sphere of financial policy, it prefers indirect means to direct ones. It was with this model of economic management in mind that Hungary had to determine the actual strategy of the switchover from the plan instruction mechanism to a planned market control.

For the success of the 1968 economic reforms we imparted greatest importance to clarifying what role price should play in the allocation of the economic resources. In the previous mechanism based on plan instructions, price fulfilled this role in three domains :

- 1) The workers being paid wages for their labour which they use at their own volition, this means the enforcement of a consumer preference kept between set limits through prices fixed for each and every product. Demand in this system had no direct influence in price formation. On the other hand, in the determination and modification of consumer prices, the equilibrium of supply and demand was regarded as one of the criteria in the forming of prices.

2) Hungary, way back in 1957, abolished the system of compulsory delivery of agricultural produce. In the commodity relations between the villages and the city, contracts became the basis. Compulsory delivery was replaced by free procurement by the state and as a consequence, agricultural prices have, for quite some time, been used as the main regulators of the production structure and of the returns.

3) Although within certain set limits, the allocative role of price has been enforced in foreign trade, first of all in the commodity trade transacted outside of the CMEA.

The 1968 economic reform was called upon to render the allocative function of price more efficient in the fields where this had been existing earlier and to introduce this function of price in the sphere of the means of industrial production also. All this had to take place without causing a setback in the planned course of economic development. In other words the aim had been that

- price should have an active role in shaping the microstructure, but

- it should not become the main regulator in the transformation of the macrostructure.

What actually does distinguish, in this respect, the old economic control system from the new one? In the old system of economic management we distinguished according to the character of the products; in the new one we distinguished according to the type of the economic decisions. While formerly we started out from the non-commodity character of the means of production and set them apart from consumption goods on this basis, now we set out from the non-market character of the long-term decisions and specify them from the short-time decisions of market character. This feature of the Hungarian economic reform will be clear from the following fact: The central instructions introduced for 1970 put constraints on 10 to 15 per cent of production and commodity trade and determine 50 per cent of investments. While the enterprises have a considerable degree of freedom in determining their production programme (in agriculture the rotation) and in the acquisition of the materials they need, their self financing has only a limited part in the process of macrostructural transformation. Great investments and capital intensive research projects are centrally planned and executed by the state.

The essential thing, however, is that the Hungarian economic reform strengthened the allocative function of price and it was just the requirements ensuing from this which were determinant for the 1968 price reform. The new tasks of price policy could no longer be reconciled with the traditional system of administrative price regulation. Price freezing and more particularly the revision of the industrial producer's prices every six to eight years, fit into such mechanisms only where the role of the price is limited to the accounting of commodity transactions. In the new situation a new approach to the problem had to be found. The price system had to satisfy the following requirements: 1) The price system must become a signal system of the national economy which correctly orients in economic decisions. This presupposed a price control by the market mechanism; 2) The price system must continue to assert the

social preferences dictated by the humanisation process going on in socialist society; 3) The activation of market mechanism must on no account release an inflation; the maximum permissible rise of the price level is 1 to 2 per cent a year.

The administrative price system and the plan instruction mechanism could not give guidance in economic decisions, thus state planning could only rely upon technical-material information available. However, for a country with a small home market and an open economy, information on the tendencies of technical development on an international scale provided no sufficient basis for planning, since her most difficult task lay in reasonable selection. Do not let us get involved in the problem of to what extent state price control can follow the periodic changes in the value relations and the conditions of supply and demand varying according to the actual requirements of planned development. Many signs and the changed practice of the past years have indicated that such price control does not necessarily go with the freezing of prices. But a foreign trade-sensitive, small socialist country is in a peculiar situation. She sells the better part of her products on the world market and her export goods, to a smaller or greater proportion, are made of imported materials. Such a country, without serious damage to economic efficiency, could hardly afford to set a different value for the import products on the home market from what she had to pay for them abroad. Similarly, she cannot sell her export goods to the domestic enterprises at rates which differ from what they fetch on the world market. This, in the course of the Hungarian economic reform, required that the elements of the market price should be incorporated in the price system.

The greatest dilemma in the 1968 price reform consisted in the coordination of the price relatives determined by the market, with price stability. We had to remember the recurrent imbalances of the years prior to the economic reform. There was good reason to fear that market price movements might get out of control and degenerate into an inflation. In period of imbalance markets are prone to produce a creeping inflation and this process is strongly characterised by a tendency to accelerate. And the faster the rate of rise in the price level the stronger the negative features of the market price system and the weaker its positive effects. Inflationary prices render no proper information for the organisation of production. Under such conditions, the expansion of production might seem desirable and favourable in a much wider sphere than it would be realistic. In addition, in the accelerated course of inflation, the enforcement of a purposeful policy in the distribution of incomes is practically impossible. In such a case the curtailment of the incomes seems best suited to overcome inflation, and this might upset the proportions between the incomes of the different classes of population and the different social strata. A market price system yields positive information under balanced conditions only, when the rational distribution of the productive factors is in good harmony with both the state of the productive forces and with the constraints which exist in every national economy.

During the period of preparations toward the economic reform it was impossible to say how far the plan instruction mechanism was to blame for the deficiency economy and to predict how far and within what length of time the new system of economic management would be able to strengthen economic equilibrium. The close on three years which have elapsed since the introduction of the reform have shown that steady economic growth, full employment and higher living standards through distribution according to work done, contribute to

creating tensions which might start an inflation. It was in the realization of this fact that Hungary established a mixed price system which bears the following main characteristics :

- 1) Fixed and maximum prices, prices allowed to move between set limits and free prices exist side by side. While as a general rule the rates at which capital goods are sold are regulated by supply and demand, in the spheres of agricultural products and consumer goods, state price control acts in a wider domain. This policy with respect to agricultural goods is necessary, in the first place because of the obligation undertaken by the state (cooperative) owned trade to take over the products and also because the purchasing price of many agricultural goods is higher than both the international market rates and the consumer price. In the field of consumer goods, administrative price control is called for to keep the cost of living on a stable level.
- 2) Selected means of production which can be traded at free prices are listed; an early warning system for these products operates. These restrictions hold mostly for those industrial semi-manufactures and jointly produced components in which a price rise would seriously influence the cost of the end product.
- 3) Among the stabilising elements integrated in Hungary's price mechanism the funds for the equalisation of import prices play an important role, by temporarily neutralising the price movements on the world market of the raw materials imported in very large volumes. In case of price movements in a boom period the fluctuations of profits and losses balance out, but the persistent price fluctuations on the world market, depending on price policy decisions, will either assert themselves in domestic price conditions or have to be neutralised by some financial measure. Basically the decisions are determined by the requirements of price stability (respectively, by the necessity to keep the rise in the price level within the yearly 1-2 per cent).
- 4) With the switchover from the administrative to the mixed price system, the time has come to set down the law for competition. The introduction of the enterprises' price policy has called for the possibility of instituting legal proceedings against the enterprises which might try to make profits through unfair competition and cause damage thereby to society.

The most sophisticated problems of the 1968 price reform emerged with the linking of domestic and foreign trade prices. The calculations carried out during the preparatory work disclosed the very substantial discrepancies between conditions under which production went on at home and the prices on the world market. Never before had any attention been devoted to them with the domestic prices completely isolated from world market rates. The foreign currency rates had no price regulating function. Restricted foreign exchange management made it possible that the divergences between the two prices should be equalised for each product separately, and that an autarchic price system should be maintained. In the plan instruction mechanism the only function of the price had been to ensure the undisturbed operation of the enterprises' self accounting system under planned management, i.e. to ensure that the price should cover the production costs and allow for a slight profit margin in addition.

However, the economic reform had to take account of the structure which it inherited from the old system of economic management. It could on no account create price conditions opposed to it. It had to continue along the autarchic rules in the price system. This, among other things, precluded the linking up of the economic reform with a currency reform. Notwithstanding this fact, some elements which might have significance for a currency reform at a later date, had been integrated into the new economic mechanism. To provide for a relationship between the Hungarian national currency with the transferable rouble and the convertible capitalist currencies, a realistic conversion coefficient (foreign trade multiplier) has been created which adapts to the average foreign exchange revenue measured according to the commodity structure of exports within and outside the CMEA. This coefficient is applied in external trade. In the non-trading relations, the forint is valued according to the parity of the purchasing power measured in consumer prices. In imports the foreign trade price multiplier is complemented with customs duties; in exports - for the time being in a considerably wide sphere - it is complemented with the export subsidy which in the less profitable productive branches makes up the foreign exchange receipts. Since most of the export and import goods have no administrative prices on the home market,

- in the sphere of export goods the receipts of enterprises are regulated by foreign trade prices through the export subsidies,
- in the sphere of import goods the users' costs are regulated by foreign trade prices through the customs rates.

Exempted from this rule are : a) energy carriers traded at maximum prices, b) most agricultural goods of whose purchasing price the state informs the producers in advance, finally c) selected consumer goods traded at uniform fixed rates. Among consumer articles as a whole, imported goods are, as a general rule, charged not only by customs duties but also by the taxes imposed on the same type of commodities produced at home.

Under such circumstances the favours granted to production had to be continued. However, the new system of management permits planning on the basis of economic efficiency measured on an international scale, which is expected to result in the gradual abolition of the elements of protectionism. The process of structural transformation, naturally, needs a considerable time and Hungary's price system is not yet capable of fulfilling its function as a system of signals. Nevertheless, the narrowing down of the sphere in which export subsidies are granted and the reduction of their sums from time to time encourage us to hope that by the mid-seventies this function will be satisfactory.

THE POSSIBILITIES OF INTRODUCING COMPETITIVE PRICES IN SOCIALIST ECONOMY.

How far can a socialist country go in the activation of the market mechanism; how consistently can it control the prices by the market; may a socialist country introduce competitive prices at all ?

If we want to approach this problem realistically, we cannot fail to see how the capitalist countries activate their price policies.

International studies and analyses have shown that price automatism as a mechanism no longer controls the development of agricultural production and the process of structural transformation. To understand the processes which we witness in agriculture, particularly in European agriculture, they must be considered on the basis of an extremely active administrative market control and a price policy which serves it.

Enhanced state guardianship finds explanation in factors which ensue from the intrinsic character of the different agricultural branches. Agricultural production is built up on biological processes. The productive cycle is long, it takes mostly a year, but it may be two years or nearly two years, as is the cycle for instance in cattle breeding. It is still longer in the planting of orchards. The cycle is particularly long in the forestry branch. And once a cycle has been started it cannot - or not always - be interrupted without incurring major losses. The requirements of crop rotation must be met. Climatic and soil conditions do not permit the growing of just any plant on any soil. Agricultural production cannot, accordingly, be boosted or diminished as fast as industrial one can. In addition, it takes very long, if at all possible, to adapt agricultural production to changes in the demand.

Mostly due to weather conditions, crop yields vary from year to year and the fluctuations cannot be predicted or taken into account in advance. Due to natural factors, the organic relation between input and output in industry does not exist in agriculture. The effect of natural factors upon the self costs of agricultural products is greater also because in agriculture in general, and in plant cultivation in particular, the better part of the cost items are non-variable. The costs are determined by the productive unit (for instance one hectare of tilled land) rather than by the quantity of produce. Fluctuations in the crop yields due to weather cause price fluctuations. These latter, and more particularly sudden price drops, cause considerable problems to the state which regards them as social problems.

The agricultural price systems in the countries with market economies differ mainly in whether these countries are self supporting, import dependent, or have a surplus for exports; whether their production structure is based on mono- or oligocultures, whether the conditions for production adapt to the price level on the world market or whether they have to grant subsidies to agriculture to maintain production. The essence is the same in each and every case : 1) The tying down of manpower in agriculture, which presupposes a incomes parity in agriculture and in industry; 2) State-guaranteed price level adapted to this incomes policy. But when the state, to determine suitable incomes relations for agriculture, redistributes part of the national income among the branches through the budget, it naturally wishes to use it as a means of influencing the structure of agricultural production too.

In Hungary, as elsewhere, agricultural price emerges in close relationship with the problem of the proportion between the workers' and the peasants' income. The first steps towards creating parity between agricultural and industrial wages were taken in the early nineteen-sixties. With the progress made in industrialisation, the endeavour to keep a sufficient amount of manpower in agriculture objectively demanded that the wages in the two fields should be brought into proper relations. Higher productivity of agricultural labour, in itself, could not solve this problem and the prices the state paid

for farm produce had to be raised from time to time. It took nearly ten years to bring about the parity of the two incomes; its attainment raised the agricultural price level above the one prevailing on the world market. Since one quarter of the value produced in Hungary's agriculture is sold on the world market either in a direct form (agricultural produce) or in an indirect one (industrially processed food) the parity of wages could not be enforced only by subsidizing exports. Hungary uses the same instruments of protectionism in her agrarian policy as are applied throughout Europe.

The differences between socialist and capitalist price systems are, nevertheless, fundamental. They come to expression first all in the fact that while the industrially developed capitalist countries have a trading (convertible) currency, the currency of the socialist countries is an accounting (restrictive) one. Whether a country's currency is a trading one or merely an accounting one causes substantial deviations in both her price system and her money's conversion rate. In the case of a trading currency as a general rule

- its conversion rate is an unequivocal yardstick for the international value of the national currency,
- the conversion rate is economically determined and the central bank is bound to ensure, through open market operations, maintaining it even under the conditions of demand and supply,
- the conversion rate governs both foreign trade activity and the price relatives of the export and import commodities,
- and through the above it exerts its influence on domestic prices.

If the currency is not convertible, the relation between the conversion rate and the commodity price can be minimised and under such circumstances the legally established gold content of the currency need not reflect the actual value relations. This is natural since when the currency takes no part in alimentering international financial operations, its officially established value is indifferent for the rest of the world. The only thing which is of significance from the international aspect is how the respective currency can be acquired in the so-called non-trading relations in general and in the tourist trade in particular.

Nonetheless we must see clearly that there is ample possibility to separate domestic from foreign trade prices, even if there is a trading currency available. Moreover, countries having no trading currency may create closer relations between foreign trade and domestic prices. As regards the price mechanism of countries having a trading currency, we might refer to the joint stand taken by the developing countries at the New Delhi Conference in 1968. To expand their exports directed towards the advanced countries, they asked for larger import quotas from the socialist countries and preferential customs rates from the capitalist ones, in the early nineteen-sixties. By the late 'sixties, having realized in the meantime that in market economies they would come up against formidable obstacles in the form of customs duties, inland taxes, skimmings, licencings, etc., which they could not overcome merely by a price reduction, these countries have asked for an expansion of their import quotas.

We wanted to stress all this to prevent the unrealistic interpretation of the different effects caused by trading and non-trading currencies. Yet, the convertibility of the currency is the crucial point which should be taken as the fundamental feature of the price system of any one country, when seeking for an answer to the question whether the national price system properly fits into international value relations. This, at the same time, is the most important criterion for the introduction of competitive prices.

Although many Marxist economists regard restrictive foreign exchange policy, administrative price system, prices properly adapted to the national value relations and the minimalisation of the allocative role of price, to be indispensable elements in a socialist planned economy, the accounting currency and the elements of the price system which follow therefrom must not be taken unequivocally to be the objective consequence of the socialist socio-economic system. It is just the economic reforms which point to the possibility and necessity, of the re-evaluation of the principles and methods of socialist planned economy. The study and revision of these methods is actually in progress and seems to be focused, to an increasing degree, on the monetary problem. This is not due to chance.

Commodity economy is, at the same time, money economy, in which money is a general equivalent, a legal tender and the means to accumulation. The balance of demand and supply is tantamount to the concise definition of the equilibrium states of the variegated market forms maintained by the budgetary and monetary policy, through which the commodity market is being regulated. The barter economy concept centres mostly around this latter, as a "thing per se". In reality, national economy can only be controlled by financial instruments in the first place, if the money functions act upon the whole of economy. But in what sphere and in what way the money functions can be enforced in practice depends on the system of control. And this is why the economic reform puts the monetary problem into the limelight of attention.

While even a small socialist country can do a great deal to develop her internal monetary system, to lay the foundations for the convertibility of her currency she must resort to international cooperation. For the European socialist countries the mechanism of cooperation in the CMEA is determinant. Cooperation in CMEA is organised basically in a barter system according to which commodity trade within CMEA is governed by bilateral five-year and one-year interstate foreign trade agreements based on the system of mandatory export and import quotas.

Economic cooperation in the CMEA is built up on multilateral accounting with the clearing rouble as the international accounting unit. This is a close system of accounting where there is no relationship between the clearing rouble and the monetary system of the capitalist world. The clearing (transferable) rouble is not convertible, its value is safeguarded by an appropriate principle of price formation. When determining the foreign trade rates, the CMEA countries set out from the prices on the capitalist world market, expressed in terms of US dollars, and when converting them into clearing rouble, they take the official gold parity (1 to 0,9) of the US dollar to the Soviet rouble as a basis. The clearing rouble prices are derived from the dollar prices in a system of rates fixed for several years.

In the CMEA countries a switchover from extensive to intensive economic development is taking place right now. It is generally understood that to meet this objective also the mechanism under which the CMEA is operating, calls for a revision. Socialist economic integration is timely, due to the same reasons which have in some socialist countries led to economic reforms. In compliance with the resolution passed by the CMEA council in 1969, an overall revision of the CMEA mechanism has been put under way and the council has set down the main directives to be considered for the concrete system of socialist economic integration. These directives disclose the main principles of the international division of labour organised on the basis of socialism in the integral system of material-technical cooperation on the one hand and in the interrelated system of commodity and money relations, on the other.

It would be very difficult at this juncture to predict the changes likely to take place in the CMEA mechanism but the solution of the monetary problem is, no doubt, one of the most essential tasks on the agenda. Lacking the external convertibility of the clearing rouble, the principle of multilaterality within the CMEA could not unfold to the desired extent. The satisfactory solution of the monetary problem basically presupposes a link-up of the clearing rouble (CMEA's accounting currency) with other monetary systems of world economy, and the precondition for the convertibility of claims arising in clearing rouble to any currency and, ultimately, into gold. With a CMEA cooperation under an advanced monetary system, CMEA's foreign trade price system would turn into such regional price system which would have a relation to the world market prices in line with the modifying effect of CMEA preferences.

THE SPECIFIC ELEMENTS OF THE SOCIALIST PRICE SYSTEM.

After the examination of the applicability of the competitive price system in socialism we may now direct our attention to the specific features of the socialist price system.

There are elements of the general mechanism, and thus of the price systems of both the capitalist and socialist economies, which objectively ensue from the prevailing socio-economic system. These specific elements are explained by the ownership relations and the social norms mandatory for the organisation of economy. The specific elements of the socialist price system can be summarised as follows :

1. The rational producers' attitude presupposes the consideration in the calculation of all those resources of which society has a limited supply only. This, in capitalism, is based upon the production factors belonging to different owners. In capitalism the production process is based upon the system of market relationship between contractor, capitalist, land owner and labour. In socialist economy on the other hand, through the social ownership of the means of production, the productive forces, except labour - are state property. The state, accordingly, may put the natural resources and the capital at the disposal of the enterprises free of charge if it so chooses. In such case the economic calculation is a calculation of wages and in the production costs the wages paid during the last stage are added to the wages costs (material cost) of the previous stages of production. This is then complemented with the profit, ultimately to determine the producer price.

The production factors, however, may be substituted in the production process within certain limits. One of the criteria of the rational enterprise attitude is the optimum combination of the production factors. When land and capital are charged by no cost, such combinations cannot be performed. With land and capital nationalized, interest on capital and on loans, and land rent can be integrated in the calculation only through tax charges, the introduction of a use rent payable on the production factors in the manner as instituted in Hungary in 1964 and 1968. Land and capital having no market, their price does not constitute a market category. But it may still be an equilibrium price, the more so as through mathematical programming the shadow prices of the production factors can readily be established.

2. The rational producer's attitude presupposes his material interest in the enterprise's returns. In capitalism this is a natural concomitant of capitalist private ownership relations. In socialism on the other hand, it must first be constructed by the state as the owner.

The debates on material interest date back to the early 'fifties when Yugoslavia introduced the workers' self management. This act put an end to the distinction between labour (wages) and risk taking (profit mechanism), with evolved in the course of the development of the productive forces in industry under capitalist conditions. This, in principle, abolished prime costs as a basic category of economic calculations, replacing it with gross income, viz. the price receipts less material costs and amortisation, on the use of which the workers' council must decide. Ever since, many economists have voiced their opinion that interest based on the gross revenue can best be reconciled with the needs of socialist society. Thus the production factors should be combined according to the principle of maximum receipts and not according to that of maximising profits.

However, in most socialist countries, the economic reform has not involved the introduction of the workers' self management. The reforms lay down the foundations for greater enterprise independence with an interest in the profits under one-man direction and the workers' supervision. The development of the productive force, the evolution of major productive units, the tremendous amount of information management must be based upon, objectively call for setting apart the work of management from physical work and have this expressed also in the mechanism of responsibility and interest. This means that the categories which had existed prior to the reform (wages, prime costs, capital, etc.) live on but with modified functions.

3. For the price mechanism the organisational structure of the productive units is likewise of great significance. In capitalism the organisation structure is shaped through evolution. In socialism it is formed by the state, through breaking down nationalized capital among the enterprises and, under different considerations, granting the right for independent activity or putting the enterprises under the control of larger integrations (trusts, etc.). When the state controls by instructions, it creates an institutional framework for national economy which is conducive to enforcing instructions and to checking on their proper realisation. In such a case, state monopoly is interpreted as an enterprise monopoly and by mergers, and by specialisation of the product mix of enterprises - mostly through a "single-hand" policy - the way is cleared for control by a centralised direction.

The situation will change if the socialist state wishes to use the supervisory function of the market mechanism. For the enterprises' attitude (among others for the enterprises' price policy) the economic medium in which they function, is likewise determinant. Competition is an immanent element of the market and at the same time the rational core of the supervisory function of the market mechanism. The abolition of the rationing system and the procurement of materials on a commercial basis, even with the monopolistic organisation maintained, provides for a competition between products. This competition is further intensified by the abolition of monopolistic situations based on legal privileges. But we must see clearly that technical development and economic efficiency will inevitably lead to a concentration of production. It is therefore import competition in the first place which may force the enterprises to take a rational attitude. Enterprises competing at home may evolve a coordinated policy under which they can appear on the market in the role of monopolistic organisations. Experience has shown that the enterprises are less apprehensive of the presence of domestic competitions than of international competition.

In a socialist economy the process of the integration of plants is a problem in its own rights. Several socialist countries established their manufacturing industries by the combination of the networks of small and medium-size plants, acting as outworkers for the manufacturing industry, and for the population. This trend of concentration closed down more small and medium plants than would have been justified. Such concentrated plant organisation solves the major tasks in the development of the productive forces to satisfaction, but leaves the national economy grappling with a multitude of deficiency articles. There is a gap in the productive structure. The structure of the productive units is satisfactory if it finds fast response worthwhile to all types of market signals. If the structure is not adequate the market mechanism will not be able to assert the whole organisatory force which is inherent in it. A large factory will naturally react to those market impulses only which call for large-scale organisation but, as a general rule, it does not respond to market signals which have no special economic significance for it. To "trifling" problems - whatever their number - the large plant will stay indifferent because it would never pay to sacrifice large-scale technology.

This problem a number of socialist countries tried to solve by granting licences to craftsmen. But there is more to it than that. The labour demand of the management, under socialist relationships; i.e. accountancy and supervision adapts to the requirements of the large enterprise. As a result, the activities of the new enterprises (cooperatives) founded with the aim of improving the supply of the population, become distorted sooner or later. The system of management (self accounting) of the enterprises (cooperatives) should also be subjected to a revision.

4. In a socialist economy price and income relations must fit into the framework of the policy of the standards of living, the main criteria of which are determined by the social norms. From this it naturally follows that in the political assessment the consumer price appears as an independent category within the price system as a whole. On the characterisation of the socialist price system, in the correlations of the producer (input) price and the consumer (output) the following may be stated :

- There are products and services which have no price since they fall under the categories of basic social care, where socialist society acts according to the principle of distribution according to needs. These are, as a general rule, the services rendered and the products provided in the framework of education and social insurance.

- There are services in which the price is not a source of profit and thus prices are formed according to certain defined criteria. For instance, the criteria for establishing rents are the cost of the maintenance of the buildings less amortisation. In some more fundamental services the price is a deficit price and the services are subsidised by state.

- The state uses the turnover tax in a wider sphere in order to redistribute its revenue through the consumer price policy. For this category the stability of the cost of living, minimum wages, more exactly a good proportion between the income of families in the lower income brackets and the cost of living, is determinant.

The features of the socialist price system expressed in these terms are of a permanent character even though some socialist countries launched consumer price reforms, too, parallel with their economic reforms. What is concerned here is that some socialist countries went too far in separating retail prices from wholesale ones and that the rational consumer attitude calls for a closer relationship between these two than there exists at present. All this tends to prove that the independent interpretation of the consumer price policy has a rational limit which became manifest in the course of the economic reforms. This brought to the foreground the problem of the consumer price reform which must be founded on a structural transformation of production in the course of economic development.

Obviously the economic policy, even in capitalist societies, embraces a policy of standard of living and there are elements in the consumer price policy very much similar to the criteria outlined above. This shows that socialist achievements are not restricted to socialist countries. But the distinct characteristics of profit, which vary with the different socio-economic systems, will continue to exist even under such conditions. In a socialist economy capital has only a social function while in the capitalist economy it is also a source of private wealth. And this is the basis, in a socialist economy, of the principle of distribution according to work done.

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Colloque organisé à l'Institut de Sociologie, les 8 et 9 octobre 1970.
(avenue Jeanne, 44 - 1050 Bruxelles).

L'ESSOR RAPIDE ET MULTILATERAL DU COMMERCE
EXTERIEUR DE LA ROUMANIE

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L'ESSOR RAPIDE ET MULTILATERAL DU COMMERCE EXTERIEUR DE LA ROUMANIE.

Le potentiel économique de la Roumanie en progrès continu, la capacité croissante de son industrie sont à la base de sa participation sur une échelle toujours plus large et plus efficace aux relations économiques internationales. Le commerce extérieur, par exemple, est caractérisé par son rythme élevé de croissance, supérieur au rythme d'accroissement du produit social total et du revenu national. La Roumanie figure d'ailleurs parmi les pays détenant l'une des premières places dans le monde à cet égard.

En intensifiant ses relations économiques avec toujours plus de pays de tous les continents, quel que soit leur régime social, la Roumanie s'appuie sur les principes du respect de l'indépendance et de la souveraineté nationale, de la non-ingérence dans les affaires intérieures des autres pays, de l'égalité en droit et de l'avantage réciproque.

Partant de ces principes et appliquant dans un esprit de suite une politique de développement complexe et à un rythme soutenu de l'économie nationale, le parti et le gouvernement accordent une attention particulière à l'amélioration de la structure des exportations. Cette structure se reflète tout d'abord dans l'augmentation du taux détenu par les produits industriels, ceux-ci représentant actuellement environ les 4/5 du volume des exportations. Les constructions mécaniques et les produits de l'industrie chimique prennent une place de plus en plus importante dans cette exportation.

La Roumanie offre à l'exportation machines et outillages, combustible, matières premières minérales, métaux, produits chimiques, engrais, caoutchouc, matériaux de construction et accessoires, matières premières de provenances végétale et animale (autres qu'alimentaires), matières premières pour la production des produits alimentaires, marchandises alimentaires, etc.

Le développement rapide du potentiel industriel, l'accroissement du niveau technique et de la complexité de l'économie nationale ont augmenté les besoins intérieurs en machines, équipements et installations technologiques complètes, matières premières, semi-fabriqués, ainsi qu'en d'autres matériaux nécessaires à la production et marchandises industrielles destinées à la population.

Subordonnées aux exigences du développement de l'économie nationale, les importations de marchandises en Roumanie ont enregistré aussi de profondes modifications, leur structure a acquis un caractère tout différent de celui qu'elle avait avant la seconde guerre mondiale.

Dans le cadre des relations économiques de la Roumanie, la place principale est occupée par ses échanges commerciaux avec les pays socialistes. Les exportations vers ces pays présentent un net accroissement du taux des produits industriels et, dernièrement surtout, des marchandises d'un haut niveau technique, allant de pair avec une diminution du pourcentage d'autres produits.

L'U.R.S.S. détient la place principale dans le cadre des échanges commerciaux roumains avec les pays socialistes. En effet, l'Union Soviétique représentait, en 1969 par exemple, une proportion d'environ 27 % par rapport à l'ensemble du commerce de la Roumanie. La deuxième place, parmi les pays socialistes, était occupée, en 1969, par la République Socialiste de Tchécoslovaquie, suivie par la République Démocratique Allemande, la République Populaire de Hongrie, la République Populaire de Chine, la République Socialiste Fédérative de Yougoslavie, etc.

Etant donné que dans le cadre de la circulation des valeurs matérielles, tout Etat a de quoi donner et de quoi recevoir, la Roumanie développe constamment ses relations économiques avec tous les Etats, indifféremment de leur système socio-économique. Ainsi, le commerce avec les pays occidentaux a enregistré dans la dernière période un développement continu. En 1969, le commerce avec la République Fédérale d'Allemagne a été de 1.751 millions de lei-devises, avec l'Italie, de 1.186 millions de lei-devises, avec la Grande-Bretagne, de 905 millions de lei-devises, avec la France, de 885 millions de lei-devises, etc.

Le volume des échanges commerciaux avec les pays en voie de développement a passé de 352 millions de lei-devises en 1960 à 634 millions en 1964 et à 1.295,6 millions en 1968.

J'ai considéré la présentation de ces aspects absolument nécessaire pour mieux comprendre le contexte dans lequel a lieu le perfectionnement du mécanisme du commerce extérieur de la Roumanie.

J'ai voulu ainsi démontrer que le commerce extérieur de la Roumanie se porte bien et que les mesures de perfectionnement, sur lesquelles j'insisterai, font partie intégrante de l'ensemble des mesures concernant l'amélioration de la direction et de la planification de l'économie nationale.

L'activité du commerce extérieur dans mon pays se déroule conformément aux plans d'exportation et d'importation, ainsi qu'au plan concernant la conclusion des contrats d'importation. L'accomplissement de ces plans constitue une tâche commune des producteurs de marchandises pour l'exportation, des bénéficiaires de biens d'importation ainsi que des unités de commerce extérieur. Je vais immédiatement me rapporter aux tâches et aux responsabilités dans l'activité de commerce extérieur.

Tout d'abord, l'unité productrice. Les unités productrices sont responsables de la réalisation totale du plan d'exportation - dans l'ensemble, par relations et par trimestre - but pour lequel elles doivent prospecter d'une manière permanente et systématique le marché extérieur et s'assurer le portefeuille de commandes; elles participent de pair avec les entreprises de commerce extérieur à la conclusion des contrats externes, ou concluent elles-mêmes directement de pareils contrats, quand elles y sont expressément autorisées.

Elles sont responsables de la valorisation supérieure des marchandises sur le marché extérieur et de l'accroissement continu de l'efficacité de l'exportation.

Conformément aux réglementations légales, elles prennent l'initiative et organisent la coopération en production avec des firmes et organisations à l'étranger, tant pour les besoins internes que pour ceux de l'exportation.

Les entreprises du commerce extérieur, sans égard à leur subordination (au ministère du commerce extérieur ou aux ministères producteurs) déploient leur activité dans les relations avec le marché extérieur en agissant au nom et pour le compte des unités productrices, en vertu du contrat économique; pour cette activité, elles reçoivent une commission.

Les marchandises exportées par l'entremise des organisations de commerce extérieur moyennant commission, passent directement de la propriété des unités productrices à celle des clients externes, conformément aux stipulations prévus dans les contrats externes.

Les entreprises du commerce extérieur peuvent acquérir des marchandises chez les unités productrices afin de les vendre à l'exportation pour leur propre compte.

Les entreprises productrices peuvent signer toutes seules les contrats externes dans le cas où le ministère du commerce extérieur et les ministères coordinateurs les ont autorisées à effectuer directement des opérations de commerce extérieur.

Elles sont responsables de la réalisation du plan d'exportation et des contrats d'exportation conclus (de pair avec les unités productrices), ainsi que de l'encaissement des devises des clients externes.

Elles secondent les unités productrices dans l'orientation et l'adaptation de la production vers les marchandises et les assortiments les plus sollicités sur le marché externe.

Néanmoins, elles prospectent d'une manière permanente et systématique le marché externe, etc.

Les ministères et les autres organes centraux et locaux qui produisent des marchandises destinées à l'exportation reçoivent des instructions concernant l'exportation au lieu d'instructions concernant la livraison des marchandises en vue de l'exportation.

Ils sont directement responsables de la réalisation du plan de commerce extérieur qui leur est attribué, de l'organisation et de l'exécution de la production destinée à l'exportation, ainsi que de la qualité et la compétitivité des marchandises.

Ils partagent la production d'exportation entre les unités productrices, décident le profillement et la spécialisation de certaines entreprises ou sections qui disposent de meilleures conditions pour réaliser les tâches d'exportation, etc.

Ils dirigent et contrôlent l'activité des entreprises de commerce extérieur qui leur sont subordonnées.

Dans l'accomplissement de la politique du Parti et de l'Etat, le ministère du commerce extérieur conduit et coordonne toute l'activité du commerce extérieur. Il est responsable, en même temps que les ministères qui ont des charges d'exportation et d'importation, de la non-réalisation du plan d'Etat du commerce extérieur. Il négocie et conclut les traités, les accords, les conventions et les protocoles commerciaux et de coopération économique avec les autres Etats, ainsi que tout autre arrangement commercial.

Dans l'exécution de ces tâches, il collabore avec les ministères et les autres organes centraux qui ont une activité de commerce extérieur.

Il dirige les échanges commerciaux par pays et délivre les autorisations d'exportation et d'importation. Il coordonne, en étant responsable, les problèmes concernant le niveau des prix externes pour les produits destinés à l'exportation ainsi que pour ceux d'importation. Il élabore des études concernant l'efficacité du commerce extérieur, etc.

En ce qui concerne la stimulation et l'accroissement de l'exportation de certains produits ou groupes de produits, on peut octroyer des "primes d'exportation" au-dessus des prix de livraison internes.

La production de marchandises destinées à l'exportation et la production de services effectués pour l'étranger sont créditées par la Banque Nationale au niveau de l'unité productrice, en raison du niveau planifié du prix de revient, y incluant les frais de livraison à l'extérieur.

Les unités productrices prennent possession de la contre-valeur des marchandises exportées - au prix de vente interne - après l'encaissement des devises.

Les différences de prix pour les opérations d'exportation - couvertes par le budget - sont décomptées en faveur des entreprises productrices d'un fonds mis à la disposition des ministères auxquels celles-ci sont subordonnées, à mesure de l'encaissement des devises.

Les exportations à crédit, à court, moyen et long terme sont créditées par la Banque Roumaine pour le Commerce Extérieur, au niveau des entreprises de commerce extérieur qui, à leur tour, acquittent aux unités productrices le prix de vente des marchandises en en retenant la commission qui leur est due.

Je veux encore vous dire que les influences favorables qui surgissent pendant l'exécution du plan, à cause de la réalisation d'un prix externe ou interne supérieur, et respectivement inférieur à celui pris en considération lors de l'élaboration du plan, vont se refléter en totalité dans la gestion des unités exportatrices ou bénéficiaires respectivement consommatrices, de marchandises d'importation.

Les influences défavorables qui surgissent pendant le même intervalle et qui sont suscitées par les mêmes raisons se reflètent également dans la gestion des unités exportatrices ou bénéficiaires d'importations, mais dans une limite de 5 %.

Dernièrement, dans notre pays, le développement complexe et multilatéral de l'économie nationale a déterminé le commencement de l'utilisation d'une méthode qui consiste à élaborer des modèles prévisionnels pour le plan de perspective. Les modèles d'optimisation des plans de commerce extérieur tiennent compte tant des conditions d'un modèle intégral qui se réfèrent spécialement aux secteurs du commerce extérieur, que des modèles partiels qui concernent des branches industrielles produisant pour l'exportation. Le modèle intégral constitue à son tour une part du modèle d'optimisation de l'économie entière.

Le modèle intégral, malgré ses difficultés, présente une certaine utilité pratique par la possibilité de déterminer le mécanisme des relations réciproques entre les rythmes de croissances, les calculs des prix, les balances de paiements en devises, l'efficacité des investissements pour l'exportation, les coefficients technologiques, etc. Le modèle partiel de l'optimisation des échanges commerciaux a pour but la maximisation des bénéfices, les solutions pour des cas concrets, les prévisions détaillées de l'offre et de la demande, etc.

Notre Institut, pour examiner la conjoncture économique internationale, étudie et établit des méthodes et modèles prévisionnels qu'il applique dans ses analyses et prévisions pour différents produits et marchés, dans le cadre du marché mondial.

Parallèlement aux formes courantes d'achat et de vente, d'importation et d'exportation, l'Etat roumain intensifie ses efforts en vue de développer la coopération dans le domaine économique, technique et scientifique, celle-ci contribuant à assurer des relations économiques extérieures stables.

La Roumanie pratique toutes les formes de coopération dans l'esprit des mêmes principes qui doivent régir les relations entre Etats.

Le point de vue de la Roumanie quant aux modalités qu'il convient d'établir à l'intention de la coopération économique internationale a été clairement exprimé il y a bien des années déjà, dans le cadre des organismes internationaux.

Nicolae Ceausescu, Secrétaire Général du Parti Communiste Roumain et Président du Conseil d'Etat, a défini de la façon suivante la politique de coopération économique internationale de la Roumanie :

"Fidèle à sa politique extérieure, la Roumanie a continuellement
 "développé ses relations de collaboration économique avec les pays
 "membres du Conseil d'Entraide Economique, avec tous les pays du
 "système socialiste mondial, ceux-ci détenant le poids principal
 "dans notre commerce extérieur"

Et plus loin :

"Partant de la nécessité d'une participation active à la division
 "internationale du travail, notre pays étendra ses relations avec
 "les autres pays ayant des systèmes sociaux différents - aussi
 "bien avec des Etats capitalistes avancés qu'avec des pays en voie

"de développement - sur la base de l'avantage mutuel, du respect de
"l'indépendance et de la non-ingérence dans les affaires intérieures" (1).

A l'étape actuelle, ces nouvelles formes de collaboration et de coopération dans le domaine de la production, de la science et de la technique - formes que notre pays ne cessera de promouvoir - revêtent une importance toujours plus grande.

Des formes de coopération dans le domaine de la production, de coopération technique, scientifique et sur le plan de la recherche scientifique ont été concrétisées dans des accords de ce genre à l'échelon gouvernemental, avec la plupart des pays socialistes et en même temps avec la France, l'Italie, la Grèce, la République Arabe Unie, l'Autriche, la République Fédérale d'Allemagne, etc.

On peut mentionner, par exemple, la coopération dans le secteur métallurgique entre l'U.R.S.S. et la Roumanie. Avec la Yougoslavie, ont été établies les bases d'une coopération dans la production des industries électrotechnique, automobile et navale; avec la Hongrie, dans la production de wagons-restaurants, de même qu'avec la Pologne, la Bulgarie, la Tchécoslovaquie et les autres pays socialistes dans divers secteurs de production et en ce qui concerne la collaboration économique, technique et scientifique bilatérale. La coopération de la Roumanie avec les pays socialistes se manifeste aussi par la construction en commun d'objectifs industriels de certains produits, etc.

La Roumanie a conclu avec la République Arabe Unie un accord aux termes duquel elle s'engage à construire une installation de concentration de phosphates contre des livraisons de phosphate, de soude calcinée, etc.

La Roumanie a participé aussi à des explorations en Afghanistan, et à d'autres actions de coopération dans le Sahara, au Brésil, en Inde, en Algérie, etc. En Inde, par exemple, la Roumanie a construit et mis en marche la raffinerie de Gauhati et a coopéré à la construction de la raffinerie de Bavauni, etc.

La coopération de la Roumanie s'est manifestée surtout sous forme de livraisons de produits finis provenant des branches métallurgique, des constructions mécaniques, chimique, etc. ainsi que de la fabrication d'installations complexes destinées aux partenaires et à l'exportation dans d'autres pays.

(1) Nicolae CEAUSESCU, "Rapport au Xe Congrès du Parti Communiste Roumain", Bucarest, 1969, p. 45-75.

Mesdames, Messieurs,

J'ai essayé par mon exposé et, d'ailleurs, par mes trois interventions sur la théorie du marché dans le cadre d'une économie planifiée, sur la politique de la fixation des prix et sur l'investissement, de vous donner quelques détails concernant ces problèmes. J'ai essayé en même temps de répondre à vos questions.

Je vous assure que toutes les mesures de perfectionnement de la direction et de la planification de l'économie nationale, tant dans mon pays que dans tous les pays socialistes ont comme but l'accomplissement des aspirations séculaires des masses pour une vie meilleure, libre et digne, pour l'affirmation des talents et des aptitudes de chaque travailleur.

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REFORMES ET MECANISMES ECONOMIQUES EN EUROPE ORIENTALE

Colloque organisé à l'Institut de Sociologie, les 8 et 9 octobre 1970.
(avenue Jeanne, 44 - 1050 Bruxelles).

COMMERCE EXTERIEUR ET COOPERATION INTERNATIONALE

par

le Professeur Dr. Costin MURGESCU

(Bucarest)

1. Le thème général du colloque - réformes et mécanismes économiques - prédétermine le contenu du présent rapport.

Autrement dit, l'auteur ne s'est pas proposé d'analyser les tendances dans le développement des échanges et de la coopération internationale (à l'échelle nationale, régionale ou universelle). Il est parti à la fois de la prémisse que les participants connaissent le mécanisme du commerce extérieur existant dans le socialisme et qu'ils sont intéressés à connaître les nouvelles orientations, les tendances générales qui apparaissent dans le processus de perfectionnement de ce mécanisme.

Les expériences des pays socialistes reflètent, à cet égard, certaines tendances communes et certaines particularités déterminées par les conditions spécifiques de chaque pays. De plus, le perfectionnement du mécanisme du commerce extérieur est en plein déroulement.

C'est pourquoi l'auteur a considéré plus utile d'essayer de répondre à la question posée par les organisateurs du colloque en présentant "un cas", celui de son propre pays. L'échange d'opinions, fondé sur des expériences différentes, montrera si le moment des synthèses théoriques est déjà arrivé ou si elles sont encore prématurées.

2. Puisqu'il s'agit de traiter un thème général par le truchement d'une expérience particulière, quelques précisions préliminaires sont nécessaires.

La République Socialiste de Roumanie entretient des relations économiques avec environ 110 pays.

Les relations avec tous les pays socialistes sont au centre de ses échanges et de sa coopération internationale.

Le cadre politico-juridique, les bases et les orientations fondamentales de la collaboration avec les pays socialistes, sont illustrés de façon caractéristique par les prévisions du Traité d'amitié, de collaboration et d'assistance mutuelle conclu entre la Roumanie et l'Union Soviétique le 7 juillet 1970.

Ainsi, l'article premier du traité mentionné stipule que "les hautes parties contractantes, en conformité avec les principes de l'internationalisme socialiste, renforceront à l'avenir aussi l'amitié permanente et inébranlable des peuples des deux pays et développeront la collaboration entre la République Socialiste de Roumanie et l'Union des Républiques Soviétiques Socialistes dans les domaines politique, économique, scientifique, technique, culturel, sur la base de l'aide fraternelle, de l'avantage réciproque, du respect de la souveraineté et de l'indépendance nationale, de l'égalité en droits et de la non-ingérence réciproque dans les affaires intérieures".

De même, l'article deuxième du même traité prévoit que "les hautes parties contractantes partant des principes des relations entre les Etats socialistes, des principes de l'aide mutuelle et de la division internationale du

travail, développeront et approfondiront à l'avenir aussi la collaboration économique et technico-scientifique mutuellement avantageuse, élargiront la coopération dans le domaine de la production et la coopération technico-scientifique et contribueront, également, au développement des relations économiques et à la collaboration dans le cadre du Conseil d'Aide Economique Mutuelle et avec les autres pays de la communauté socialiste".

En même temps, la Roumanie développe ses échanges et la coopération économique avec tous les Etats, sans égard à leur régime socio-économique, sur la base des principes consacrés du respect réciproque de l'indépendance et de la souveraineté nationale, de l'égalité en droits, de la non-ingérence dans les affaires internes et l'avantage mutuel.

La Roumanie participe à l'activité des organismes internationaux du système des Nations Unies, ainsi qu'à l'activité d'autres organisations internationales qui facilitent le flux mondial des valeurs matérielles et spirituelles.

Le volume du commerce extérieur de la Roumanie s'est accru au cours de l'actuel plan quinquennal (1966-1970) d'environ 85 % et doit enregistrer un nouvel accroissement de quelque 45 % au cours de la période du prochain quinquennat (1971-1975). Pendant les dernières années (1967-1969), des accords ou des ententes gouvernementales de collaboration et coopération économique ont été conclus avec plus de 50 pays; en vertu de ces accords, une multitude d'actions de coopération économique ont été effectuées ou sont en cours d'être effectuées en Roumanie, dans les pays partenaires ou sur des tiers marchés.

Le contexte, sommairement esquissé, qui reflète le dynamisme de son économie nationale, explique suffisamment, croyons-nous, les préoccupations existant en Roumanie au regard du perfectionnement du mécanisme du commerce extérieur et de la promotion de formes modernes de coopération économique internationale.

Sans doute, l'auteur abuserait-il de la patience des participants s'il se proposait d'entrer dans les détails de ces préoccupations, et dépasserait les limites d'une simple esquisse des orientations et tendances générales.

3. L'approche correcte des problèmes concernant le perfectionnement du mécanisme socialiste de commerce extérieur impose la prise en considération de deux catégories d'exigences.

Une première catégorie, fondamentale, découle de la nature du système, de la propriété socialiste des moyens de production et des structures institutionnelles qui en découlent. Ces exigences trouvent leur expression dans le monopole d'Etat du commerce extérieur et dans l'inclusion des activités de commerce extérieur, à côté de toutes celles de la production matérielle et de toutes les activités sociales connexes, dans une conception unitaire, dans le plan de l'économie nationale, en vue de la rationalisation macro-économique de la croissance.

Une seconde catégorie découle de la nécessité d'identifier les formes organisationnelles, les leviers économiques et les méthodes de travail les plus aptes à assurer les liaisons entre l'économie nationale respective et le reste du monde, la participation au circuit mondial des valeurs et à l'approfondissement de la division internationale du travail, en concordance avec les éléments toujours nouveaux qu'apporte chaque étape du développement, avec les propres objectifs établis et avec le caractère chaque fois plus complexe des relations économiques internationales du monde contemporain.

La prise en considération des exigences de la première catégorie ne peut conduire - ipso facto - à l'immobilisme du mécanisme socialiste de commerce extérieur si l'on exclut l'hypothèse des interprétations dogmatiques. Mais elle impose d'évidents conditionnements dans l'élaboration des mesures engendrées par la seconde catégorie d'exigences.

En fin de compte, c'est précisément dans le cadre de pareils conditionnements qu'on peut assurer aux mesures de perfectionnement du commerce extérieur l'efficacité à long terme du développement économique dans son ensemble et l'accroissement du rôle de ce secteur dans la réalisation des objectifs stratégiques de la société respective.

4. La thèse de principe énoncée mène inévitablement à une autre remarque : les transformations qui interviennent dans le mécanisme du commerce extérieur de la Roumanie ne trouvent leur entière signification que dans le contexte beaucoup plus large de l'action de perfectionnement de tout le système d'organisation, de direction et de planification de son économie nationale. Le document programmatique de cette action, élaboré par la Conférence Nationale du Parti Communiste Roumain en décembre 1967 et à présent graduellement mis en pratique, est guidé par l'idée du relèvement de l'efficacité économique dans tous les secteurs d'activité.

Le commerce extérieur, organiquement intégré, ayant des fonctions vitales dans le mécanisme économique socialiste, ne pouvait rester en dehors de ce mouvement général, ne pas le refléter dans son domaine spécifique et ne pas l'influencer en même temps.

Dans ce contexte, les facteurs spécifiques qui agissent dans la direction du perfectionnement du mécanisme de commerce extérieur sont : la croissance rapide du volume des échanges avec l'étranger; les transformations qui interviennent dans leur structure comme conséquence de l'industrialisation; l'extension de la gamme des marchandises exportées et importées; l'élargissement de l'aire géographique des échanges; la promotion de formes plus variées de coopération économique; la nécessité d'assurer une balance de paiements équilibrée et d'élever la contribution du commerce extérieur au développement de l'économie nationale.

L'action des facteurs spécifiques indiqués assigne au commerce extérieur des tâches dont l'accomplissement est conditionné en grande partie par l'élimination de certains phénomènes de centralisme excessif.

Dans le mécanisme du commerce extérieur de pareils phénomènes sont apparus à la suite d'une interprétation unilatérale (par conséquent déformante) du principe constitutionnel du monopole d'Etat : les activités d'importation et d'exportation étaient réservées uniquement à des entreprises spécialisées, subordonnées au Ministère du Commerce Extérieur. Cette structure organisationnelle a pu avoir une certaine motivation historique au moment de son introduction en 1949, au temps où l'on faisait les premiers pas dans la construction de l'économie socialiste. L'identification d'une certaine structure organisationnelle avec le principe même dont elle découlait, ne pouvait ne pas créer, avec le temps, des inconvénients propres à toute ankylose institutionnelle.

Dans le mécanisme du commerce extérieur, de pareils inconvénients se sont concrétisés notamment par la rupture du producteur ou du consommateur interne de son client ou fournisseur externe.

Une rupture totale déterminant :

- a) l'indifférence du producteur ou du consommateur interne devant les exigences, les conditions ou les prix du marché externe avec lequel ne pouvaient entrer en relations commerciales que les entreprises spécialisées du Ministère du Commerce Extérieur;
- b) une procédure compliquée de raccords administratifs, entre le producteur ou le consommateur interne, l'exportateur ou l'importateur national et le marché extérieur.

Le perfectionnement du mécanisme du commerce extérieur en Roumanie s'attache à l'idée de l'élimination de ces inconvénients par des simplifications en matière d'organisation, par la promotion de formes et méthodes plus souples au regard du marché externe, par l'utilisation plus intense de certains leviers économiques stimulateurs dans le cadre déterminé du monopole d'Etat du commerce extérieur, et compte tenu de l'exigence d'unité requise par le plan de l'économie nationale.

5. Un premier pas dans la direction de la création d'une relation plus étroite entre la production interne et le marché externe a été fait par le transfert des entreprises de commerce extérieur de leur subordination au Ministère du Commerce Extérieur dans celle des Ministères qui coordonnent les différentes branches de l'économie nationale.

Cette mesure facilite la collaboration des unités productrices avec les entreprises de commerce extérieur spécialisées dans les exportations ou les importations des produits respectifs, stimule l'étude en commun des marchés extérieurs et fait mieux refléter dans la production les besoins du consommateur externe. Elle accroît, en même temps, la responsabilité directe de tous les ministères pour toute l'activité directe de tous les ministères, pour toute l'activité de commerce extérieur dans les branches qu'ils dirigent.

6. La principale orientation des mesures auxquelles nous nous référons a en vue la mise en relation directe des unités productrices avec le marché extérieur. Ainsi, le Statut des centrales industrielles, entré en vigueur en 1969, prévoit que ces grandes unités économiques doivent élaborer, sur la base d'études entreprises par elles et par les entreprises qui les composent, des propositions propres concernant le plan d'exportation et de fonds en devises nécessaires aux importations.

En 1970, on a renoncé à la vieille distinction qui existait dans le système de planification entre "le plan des livraisons de marchandises pour l'exportation" (des unités productrices) et "le plan d'exportation" (des entreprises du commerce extérieur). Les unités productrices (centrales industrielles, combinats, etc.) ont leurs propres plans d'exportation; elles répondent directement, tout comme les ministères, pour l'ensemble de la branche, tant de la réalisation des exportations prévues et de l'emploi rationnel des ressources pour les importations, que de la préparation de la production destinée à l'exportation, du respect des clauses contractuelles et de la modalité dont sont mis en valeur leurs produits sur les marchés extérieurs.

Afin d'exercer leur compétence et de réaliser les tâches qui leur sont assignées, les centrales industrielles peuvent, dans certaines conditions, créer des unités propres d'exportation ou d'importation, organiser des dépôts et des magasins propres pour exposer les produits à l'étranger, envoyer sur différents marchés leurs représentants permanents, agents commerciaux ou délégués temporaires, participer aux expositions et foires, etc.

La transformation substantielle qu'implique le passage d'une rupture totale à la relation directe avec les clients étrangers comporte, bien sûr - pour ne pas troubler les rythmes élevés de croissance de l'économie nationale - des étapes intermédiaires. Le caractère évolutif du processus trouve son expression dans des modalités variées par lesquelles on réalise pratiquement aujourd'hui les opérations d'importation et d'exportation, dans l'apparition de nouvelles formes de collaboration entre les unités productrices et les entreprises de commerce extérieur.

Habituellement, les unités productrices effectuent les opérations de commerce extérieur par l'entremise des entreprises spécialisées du domaine respectif. Les contrats conclus avec les clients étrangers sont signés conjointement par les unités productrices et les entreprises de commerce extérieur ou bien seulement par ces dernières. Mais l'entreprise de commerce extérieur déploie son action sur le marché extérieur au nom et pour le compte de l'unité productrice, en vertu d'un contrat distinct passé entre elles. Les marchandises passent directement de la propriété des unités productrices dans celle du client étranger, et l'entreprise de commerce extérieur a droit à une remise légale pour l'activité déployée en vue de la réalisation de l'opération respective d'importation ou d'exportation.

Néanmoins, les unités productrices peuvent aussi effectuer directement des opérations de commerce extérieur et peuvent conclure seules les contrats respectifs, au cas où elles y sont expressément autorisées.

En même temps, les entreprises de commerce extérieur peuvent acheter des marchandises pour les transformer, les trier, les stocker, les emballer et les vendre ensuite à leur compte sur les marchés extérieurs.

7. Certes, les mesures organisationnelles quelque importantes qu'elles soient, ne peuvent par elles-mêmes remplacer les leviers économiques dans le perfectionnement de l'activité dans ce domaine.

Aussi sont-elles accompagnées par l'accroissement du rôle du crédit dans l'activité de commerce extérieur des unités productrices et par des mesures financières destinées à refléter dans le bénéfice des entreprises les résultats de cette activité. Pour la production de marchandises destinées à l'exportation, les unités productrices, par exemple, sont créditées par les unités bancaires jusqu'au moment où elles réalisent la contre-valeur de leurs ventes aux clients étrangers.

Nicolae Ceaușescu, secrétaire général du Parti Communiste Roumain et Président du Conseil d'Etat, a défini de la façon suivante la direction vers laquelle tendent les mesures à caractère économique-financier :

"Il est nécessaire de lier plus étroitement les unités productrices à l'activité de commerce extérieur, d'améliorer leur intéressement matériel de sorte que les bénéfices des entreprises et les revenus des collectivités de travailleurs dépendent de la mise en valeur des produits à l'exportation. Il faut combattre fermement la mentalité de certains camarades qui négligent l'efficacité économique de l'activité commerciale, jugeant que le plus important est d'obtenir des devises sans tenir compte combien cela coûte, quelle quantité de travail national est consommée pour la production des marchandises exportées. Nous ne pouvons admettre qu'une partie du plus-produit du peuple soit gaspillée par le commerce extérieur" (1).

8. Le perfectionnement du mécanisme du commerce extérieur de la Roumanie serait mal interprété s'il était considéré unilatéralement sous l'aspect de la décentralisation de certaines compétences. Le fait que les organes centraux d'Etat ont été débarrassés de certaines attributions pouvant être remplies de manière plus rationnelle et plus efficace par les producteurs, crée la possibilité pour les premiers de mieux concentrer leurs préoccupations sur les problèmes majeurs et de longue haleine concernant le développement d'ensemble du commerce extérieur, le relèvement de son efficacité et de son rôle dans la croissance économique de la Roumanie.

(1) Nicolae CEAUȘESCU, "Rapport au Xe Congrès du Parti Communiste Roumain", Bucarest, 1969, p. 46-47.

La nouvelle loi d'organisation et de fonctionnement du Ministère du Commerce Extérieur est significative à cet égard. Elle établit la responsabilité de celui-ci pour la coordination de toute l'activité de commerce extérieur du pays, pour la réalisation d'une politique unitaire de relations économiques internationales et pour l'accroissement de l'efficacité économique des échanges avec l'étranger, ainsi que son rôle accru dans l'élaboration et l'exécution du plan du commerce extérieur dans son ensemble, du plan de la balance commerciale et de la balance des paiements, comme des parties organiques du plan unique d'Etat de l'économie nationale. La compétence exclusive de ce ministère à accorder les autorisations d'importation et d'exportation agit dans ce sens. La décentralisation de certaines activités du commerce n'affaiblit pas ainsi la responsabilité du Ministère du Commerce Extérieur, en tant qu'organe central chargé de mettre en oeuvre la politique d'Etat dans ce domaine, mais au contraire, crée des conditions pour l'exécution de cette fonction en ce qu'elle a d'essentiel.

En rapport avec les nouvelles formes d'organisation, on a créé le Conseil du Commerce Extérieur, organe consultatif présidé par le Ministre du Commerce Extérieur et dont font partie les représentants de tous les ministères intéressés. Le Conseil analyse périodiquement - avec la participation des entreprises importatrices et exportatrices - l'activité dans ce domaine et fait des propositions et des recommandations pour l'amélioration de l'activité.

On a également renforcé le contrôle d'Etat sur la qualité des produits destinés à l'exportation, le respect strict des contrats et des obligations assumées vis-à-vis des partenaires étrangers.

On a donné ces quelques exemples car ils sont de nature à mettre en relief un deuxième aspect du complexe processus de perfectionnement du mécanisme socialiste de commerce extérieur, réalisé graduellement en Roumanie sur la base du principe immuable du centralisme démocratique dans la conduite planifiée de l'économie nationale.

2. Les relations économiques internationales acquièrent une dimension nouvelle dans le monde contemporain par l'ampleur et la variété des formes de coopération dans le domaine de la science et de la technologie.

Deux facteurs, notamment, poussent à l'essor de la coopération dans ce domaine :

- a) la transformation de la science de facteur exogène en facteur endogène de la croissance économique ou, pour reprendre une formule de M. Marjolin, le fait que "la capacité de découverte et son complément, la capacité d'exploiter la découverte, remplissent désormais un rôle comparable à celui qu'occupait autrefois la possession de gisements de matières premières et de sources d'énergie";
- b) l'ampleur des ressources financières, matérielles et humaines, qu'implique le maintien de la cadence du progrès scientifico-technique contemporain; d'où l'impossibilité pratique pour chaque pays d'assurer dans tous les domaines une recherche à un niveau compétitif sur le plan international,

C'est-à-dire efficiente du point de vue économique. C'est le point de départ d'un approfondissement de la division internationale du travail dans le domaine de la recherche-développement et d'efforts faits pour faciliter le transfert des connaissances acquises et qui se traduisent par des formes toujours plus variées de coopération technico-scientifique entre pays, instituts de recherche et d'enseignement, laboratoires, entreprises, etc.

La préoccupation de s'engrener dans le circuit universel de la recherche moderne et de fonder son développement sur les conquêtes les plus nouvelles de la connaissance humaine se reflète, en Roumanie, dans son réseau élargi d'accords gouvernementaux, de coopération technico-scientifique et la poursuite de leur réalisation au moyen du mécanisme des commissions mixtes bilatérales.

Les accords intergouvernementaux de coopération technico-scientifique constituent des instruments importants, parce qu'ils créent le cadre nécessaire à la collaboration. En même temps, l'expérience nous a démontré qu'ils doivent être développés sur une base économique précise, entre ceux qui effectuent directement la recherche.

La loi sur l'organisation de l'activité de recherche scientifique, adoptée par la Grande Assemblée Nationale de la Roumanie en décembre 1969, prévoit en ce sens expressément le droit de toutes les unités de recherche ou de projection de conclure directement des contrats de recherche scientifique ou technique commune avec les unités ou organisations similaires des autres pays.

En même temps est promue la coopération directe entre les instituts de recherche, d'enseignement, ainsi qu'entre les unités économiques de Roumanie et celles similaires des autres pays dans le domaine de la formation humaine.

Enfin, la participation des institutions, des organisations et des spécialistes à l'activité des associations ou organismes internationaux dans lesquels la coopération scientifique et technique se réalise sur des bases multilatérales, se trouve stimulée.

10. Le stade le plus complexe de la collaboration économique internationale est atteint de nos jours par la coopération dans la production.

Les avantages de la coopération dans la production en vue de la croissance économique des pays partenaires et l'extension des échanges internationaux, ses limites et la variété des formes dans lesquelles elle se réalise, ont déjà formé l'objet de nombreuses études pour qu'il ne soit plus nécessaire de nous y arrêter que pour esquisser rapidement l'orientation générale de la Roumanie dans ce domaine.

C'est-à-dire : quelles sont les formes de coopération vers lesquelles s'achemine de préférence la Roumanie ?

- a) la construction, en collaboration avec les pays limitrophes, d'objectifs communs sur la base des principes de la parité et de la pleine propriété de chaque Etat sur la partie de l'objectif situé sur son territoire.

Le grand complexe hydro-énergétique du Danube, situé aux Portes de Fer, construit conjointement par la Roumanie et la Yougoslavie, représente une pareille forme de coproduction;

- b) la construction de nouvelles unités ou le développement de capacités de production dans des unités déjà existantes, au moyen d'équipements livrés par crédits remboursables en produits ou services. On l'appelle aussi parfois "la forme roumaine" de la coopération dans la production parce que - inspirée par notre propre expérience, ainsi que par celle d'autres pays - elle a été exprimée et synthétisée pour la première fois dans une proposition cohérente présentée devant les organismes internationaux par les représentants de la Roumanie (1).

Nous avons présenté à une autre occasion les avantages pour les partenaires et les limites de cette forme pour ne plus insister à présent (2). Pourtant, nous ne pouvons ne pas mentionner que, devenue forme courante de coopération internationale, elle enrichit d'une façon permanente ses modalités concrètes de réalisation; il est aussi de toute évidence que son efficience s'accroît lorsque les livraisons d'équipements sont accompagnées d'accords complémentaires ayant trait à la vente des licences, au know-how, à l'assistance technique, à l'aide pour la formation des cadres, et aux accords pour la vente des produits obtenus sur les divers marchés - et si cela est possible - pour un terme plus long que celui nécessaire au remboursement du crédit initial.

La forme à laquelle nous nous référons est pratiquée par la Roumanie tant comme bénéficiaire d'équipement reçu par crédit, que comme pays créancier.

- c) Différentes variantes des formes de coproduction (coproduction pure, coproduction conjuguée, production sur commande, sous-production, etc.).

L'expérience a démontré combien de pareilles formes facilitent aux partenaires de combattre certaines asymétries existantes sur le plan international en ce qui concerne les ressources en matières premières, les capacités de production, le disponible des forces de travail, le niveau des salaires, les connaissances techniques, etc.

(1) V. en ce sens le Mémoire présenté par la Roumanie à UNCTAD en 1964 : "Le commerce et le développement économique. Actes de la Conférence des Nations Unies", 1965, p. 447-448.

(2) Costin MURGESCU, "La coopération économique et technico-scientifique internationale" dans le volume "L'efficience du commerce extérieur", Bucarest, 1968, p. 68-73.

- 1) Parce que nous nous sommes rapportés plus haut aux résultats de l'expérience acquise, nous sommes obligés de constater que les diverses formes de coopération dans la production prouvent pleinement leur efficience, tout spécialement lorsque la solidarité des partenaires s'étend aussi sur le terrain de la commercialisation mutuellement avantageuse sur les différents marchés des produits obtenus par des efforts conjugués.

C'est une constatation qui explique l'importance toujours plus grande que les entreprises roumaines attachent également à la collaboration dans le domaine commercial, comme corollaire de la coopération dans la production.

11. Arrivés à ce point et récapitulant ses commentaires, l'auteur est forcé de constater qu'il se trouve plutôt à la fin du commencement qu'au commencement de la fin - pour paraphraser une expression devenue célèbre -.

Il bénéficie d'une seule circonstance atténuante, celle d'avoir précisé dès les premières lignes de ce rapport qu'il était guidé non pas par l'intention de faire une analyse, mais une simple esquisse, dans le but de déclencher un échange de vues en la matière mise en discussion.

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REFORMES ET MECANISMES ECONOMIQUES EN EUROPE ORIENTALE

Colloque organisé à l'Institut de Sociologie, les 8 et 9 octobre 1970.
(avenue Jeanne, 44 - 1050 Bruxelles).

A NOTE ON LYAPUNOV'S THEOREM AND THE OPTIMUM
MODEL OF A PLANNED ECONOMY

Prof. Jean Waelbroeck
Brussels.

The "model of a planned economy".

Polish economists such as C. Bobrowski, O. Lange, W. Brus, have used the term "the optimal model of a planned economy" to denote the fact that the best way of organizing such an economy reflects e.g. the aims of planners, the level of development which it has attained. In particular it has been stated that prices are a more effective planning instrument in a developed than in an underdeveloped economy.

Many arguments can be invoked to justify this. Social rigidities and traditional attitudes which inhibit the effectiveness of the price mechanism decrease with development. As the number of trained managers increases, decentralization (and hence the price system) functions better, one of the advantages of centralization being that it economizes scarce managerial talent. Developed economies are more complex than underdeveloped ones, and development enhances the significance of the information economies which are an advantage of the price system.

I will be concerned with another consequence of development, which does not seem to have been discussed in this context before, and this is the fact that developed economies may tend to be "more convex" than underdeveloped ones. I will illustrate this by a graphical argument, which illustrates why approximate "convexification" comes about as an economy grows larger. I will then discuss the limiting case of full convexification in terms of a theorem of Lyapunov. An attempt will be made to present the logic of the proof of this theorem in as untechnical language as possible.

*
* *

The use of prices as a steering mechanism in a planned economy was proposed by O. Lange and F.M. Taylor (1938) in well known papers, which described a sophisticated procedure which can probably not be implemented in practice, if only because it is difficult to imagine planners juggling prices as imagined by O. Lange and F.M. Taylor. Schemes of the following type have been thought to merit consideration by practical economists in socialist countries, and have actually been experimented to some extent. Under these schemes, planners fix prices for some years ahead, and establish for that period fixed scales of incentive payments linked to profits. Some quantitative constraints are also fixed for some time ahead, broad enough to leave firms with a substantial freedom in deciding their production programmes. These schemes thus involve asking firms to maximize profits for a finite period over the subset of their production set which is consistent with the quantitative constraints imposed, the profits being evaluated in terms of announced accounting prices. These prices are not necessarily constant : e.g. it is a generally accepted practice to price new products at a high level initially, and to reduce the price over time.

For such a multiperiod decision process, it is very unlikely that the production sets of enterprises are convex. Scale economies and "learning by doing" are bound to be very important. As is well known, it is only if production sets are convex that planners can pick prices such that profit maximization is consistent with achievement of an arbitrary efficient plan (a plan such that no other plan yields more of at least one commodity and no less of any others) (*). This provides a rational justification for the imposition of quantitative constraints, as a way of truncating production sets of enterprises to eliminate contradictions between profit maximization and achievement of the optimal plan. (There may be other reasons for imposing quantitative constraints, for example to reduce the impact of a wrong choice of planning prices on the production programmes adopted by enterprises. But I will not be concerned with this problem which involves decision making in uncertainty).

One reason for thinking that the schemes described are not mere chimeræe spun in the dreams of theoreticians is that they are actually formalizations of long standing aspects of Soviet type planning. At no time has quantitative planning been detailed enough to include all decisions. Enterprises have always been required to maximize profits at some accounting prices - thus maximizing of gross output is maximizing profits at zero accounting prices for inputs -.

It is thus reasonable to think that the schemes described can be thought as a theoretical description of the way in which a planned economy ought to be working - as an idealized description of reality -. The discussion of the phenomenon of convexification thus light on the connection between the best organization of a planned economy and the structure of that economy.

Convexification in the compact discrete case.

The following argument shows why the aggregate production set tends to become, in a loose sense, "more convex" as the number of production units grows. I will use graphical argument inspired by the presentation of production theory in T.C. Koopmans, first essay (1957). It will readily be seen that the argument is general and extends to production sets in any numbers of commodities and for any number of enterprises.

It is assumed that the production possibilities of enterprises are described by compact convex sets in the commodity space. The number of enterprises is finite. There is no interaction between enterprises : i.e. the fact that one enterprises chooses a particular production program does not affect the production possibilities of the second.

(*) I will not be concerned in this paper with the fact that planners are in fact dealing with an infinite horizon problem and that, with non convexities present, it is not certain that an optimal infinite programme coincides over the relevant range with an efficient programme for a given horizon period.

Let enterprises G and H have production sets X_g and X_h , which are not convex. The aggregate production set is the sum $X_g + X_h$ of the sets for the two enterprises, where the sum set is the set of all sums of one vector in X_g and one vector in X_h . In diagram I, the sets are drawn on the assumption that both enterprises produce only two goods (1) and (2); the production sets are accordingly entirely in the first quadrant.

The aggregate production set $X_h + X_g$ is clearly bounded to the left and below by the ordinate and abscissa. It is clearly also connected - all of one piece. To complete its construction it is necessary to draw its outer frontier in the positive quadrant.

This frontier is the set of "efficient production programs", i.e. programs such that no other program exists which produces more of one good and no less of another. A basic decentralization theorem states that if prices are positive, profit maximization by individual production units results in an efficient aggregate program. Hence three efficient points of $X_g + X_h$ are $x_{1g} + x_{1h}$, $x_{2g} + x_{1h}$, $x_{2g} + x_{2h}$. The rest of the frontier of the aggregate production set may easily be completed, and this set has the shape drawn in the diagram.

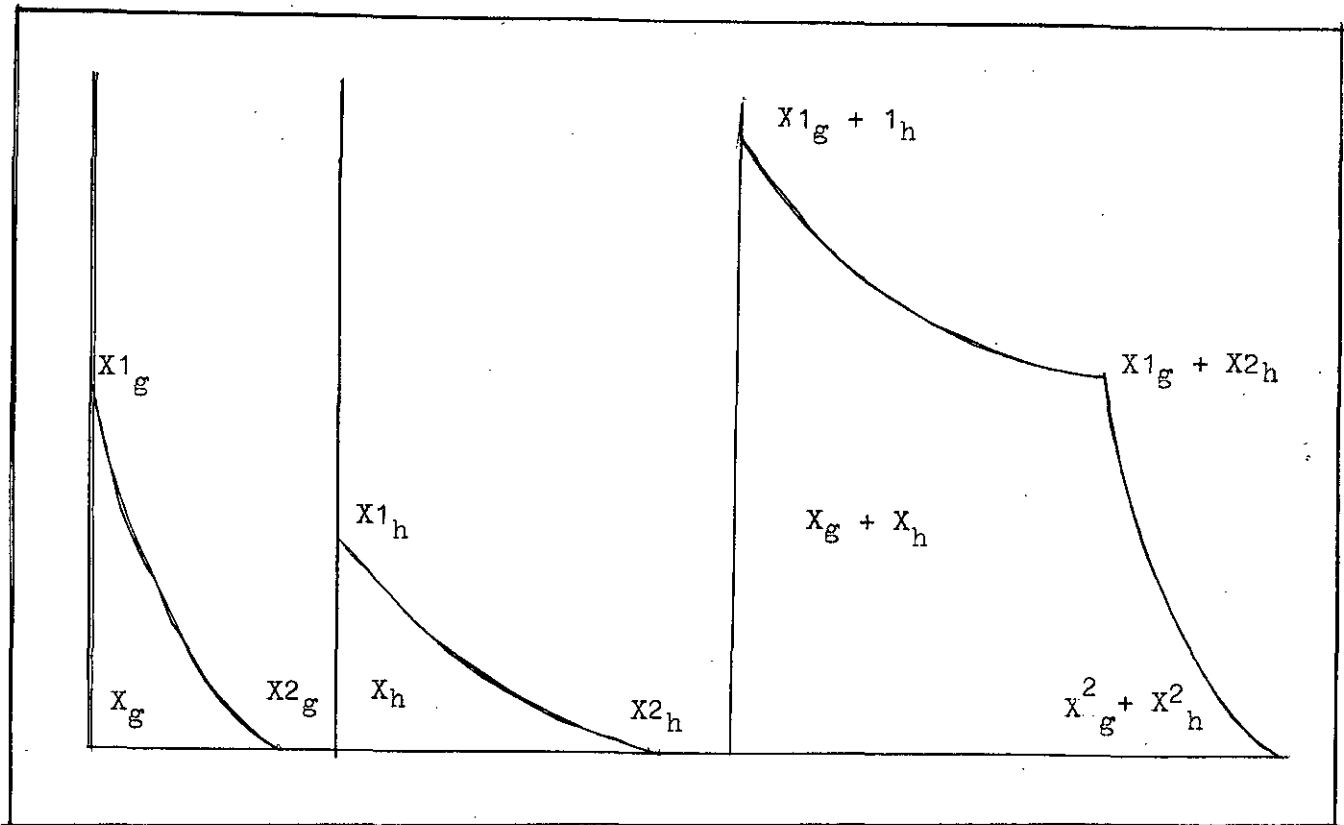
The aggregate set is clearly, in a loose sense, "more convex" than either of the production sets of enterprises G and H. And, in the same loose sense, there will be a tendency for the aggregate set to become closer to convexity as the number of enterprises grows.

Diagram I.

The diagram shows why prices become more acceptable as a tool for steering a planned economy as the number of enterprises grows. If there is only one enterprise, profit maximization is consistent with only two possible plans. If there are two there are three plans, and in general each addition of one enterprise increases the range of the plans which are consistent with profit maximization. In an underdeveloped economy with few enterprises, a broad recourse to prices may lead to a very imbalanced structure of production. In a developed economy with many enterprises, a balanced pattern of production is possible even though profit maximization leads each enterprise to specialize in producing a very limited range of products.

The compact continuous case and Lyapunov's theorem.

The above argument is subject to the criticism that approximate convexity is too vague a concept to be really satisfactory. For this reason it is interesting to discuss the limiting case where the aggregate set is convex. The basic tool of analysis is a generalization of Lyapunov's theorem, which is due to H. Richter (1963). A rigorous proof involves advanced mathematical tools, and such a proof can be found in references given in the bibliography (see in particular H. Richter (1963), D. Blackwell (1951)). As often happens the ideas on which the proof is based have an economic interpretation which is interesting in its own right. We will try to set them out using as little technical language as possible.

DIAGRAM I

Planning as it is practised in the U.S.S.R. is quite detailed, and this implies that the basic production units to which orders are transmitted are quite small in many instances. At the end of a long administrative process, the plan established at the center is progressively disaggregated into plans for enterprises which in fact cover not only the results of the activity of the enterprises, but also the operations of subunits such as individual shops or groups of furnaces.

Some disaggregation over time of basic production units is also possible. A foundry shop may be operated to make spare parts in the early part of the year, and standard parts in the latter part; thus one production unit may be "divided over time" into several subunits (*).

Not all basic production units are individually negligible from the point of view of the central planner. For instance the Leningrad giant turbine factory plays a major role in the electrification plan. Because of the nature of the production process, it is not feasible to divide the factory into subunits either within the enterprise, or "over time".

The concept of an "individually negligible production unit" also depends on the level of development. Every year large numbers of enterprises are built, and factories which were alone of their sort when five years plans began are now only one of the members of branches of industry.

We thus think of the economy as consisting of two parts. There are first a number of large production units, such as the Leningrad turbine factory. These have an aggregate production set which is the sum of the production sets of each unit, assumed compact. Then there is a large number of small production units, which have likewise an aggregate production set, which will be defined more precisely below. The aggregate production set of all enterprises is the sum of the aggregate sets for the two groups of production units.

Under the assumptions described below, the production set for the second group of enterprises will be compact and convex, and it will be possible to associate with every efficient plan non negative prices such that the plan assigned to each production unit maximizes its profits. There will be no contradiction between optimal planning and profit maximization, though to the extent the prices are such that there are several commodity bundles which maximize their profits, it will be necessary to instruct them to choose the bundle which corresponds to the optimal plan. The aggregate production set for the first group of enterprises will be convex only if the sets for each enterprise is convex. Hence price decentralization is not an effective way of directing these enterprises; they should be subjected to quantitative planning.

(*) but there must then be absence of interaction over time : the number of standard parts which can be produced in the second part of the year must be the same whether spare or standard parts are produced in the first part.

The optimal model of the planned economy is thus a mixture of price decentralized direction of the small production units, and centralized planning of the production of the large ones. "Small" means being one of many production units in a branch of industry; and as the number of enterprises grows, the proportion of production capacity which can be directed effectively by steering prices probably tends to increase.

The concept of "individually negligible units" may be formalized using the device imagined by R.J. Aumann (1964) of identifying agents in an economy with points of a continuum. As Aumann suggests, just as physicists find it convenient to think of continuous "ideal gases", it may be useful to think of agents in an economy not as individual consumers of enterprises, but as points of an arbitrary bounded and closed interval.

We will first make highly restrictive assumptions on production possibilities. This will make it possible to interpret the essential ideas of the analysis in graphical terms. More general assumptions will then be stated. It will be found that the reasoning made for the simple case can be applied without difficulty to the general one.

As to technology, it is assumed that substitution is not possible. A production unit which embodies a certain technique can either be activated to produce commodities in certain proportions, or be inactive : its production will then be a zero vector.

Production techniques can then be represented graphically if no more than three commodities are produced or consumed. Assume that techniques produce one good, and use two variable factors (1) and (2). Then each technique can be represented by a vector $(1 \ x_{1a} \ x_{2a})$, where x_{1a} , x_{2a} are technical coefficients describing the amounts of factors (1), (2) necessary to produce one unit of the good. In diagram 2, techniques are represented by points of the first quadrant with coordinates equal to the technique's input coefficients of (1) and (2).

It is further assumed that known techniques are points of a compact set A.

Production according to any technique is limited by the amount of installed capacity. If units functioning according to techniques in a set M are activated, then the aggregate resulting output will be : $X(M) = (X_0(M) \ X_1(M) \ X_2(M))$, where the components of the vector are the production of the good and the consumption of the two factors.

If there is no interaction between units, such as might be caused for instance by pollution, then the commodity bundle $X(M_1 \cup M_2)$ produced by activating units in disjoint subsets M_1 and M_2 of A is equal to $X(M_1) + X(M_2)$.

It will be noted that there is no reason to expect that the existing capacity for the different techniques will be spread uniformly over A. There may be techniques for which no capacity exists, others such that finite capacity exists for techniques described by a single point of A. This however does not affect the validity of defining the vector set function $X(M)$ which defines the commodity bundles produced when production units embodying techniques in a subset M of A are activated.

DIAGRAM II

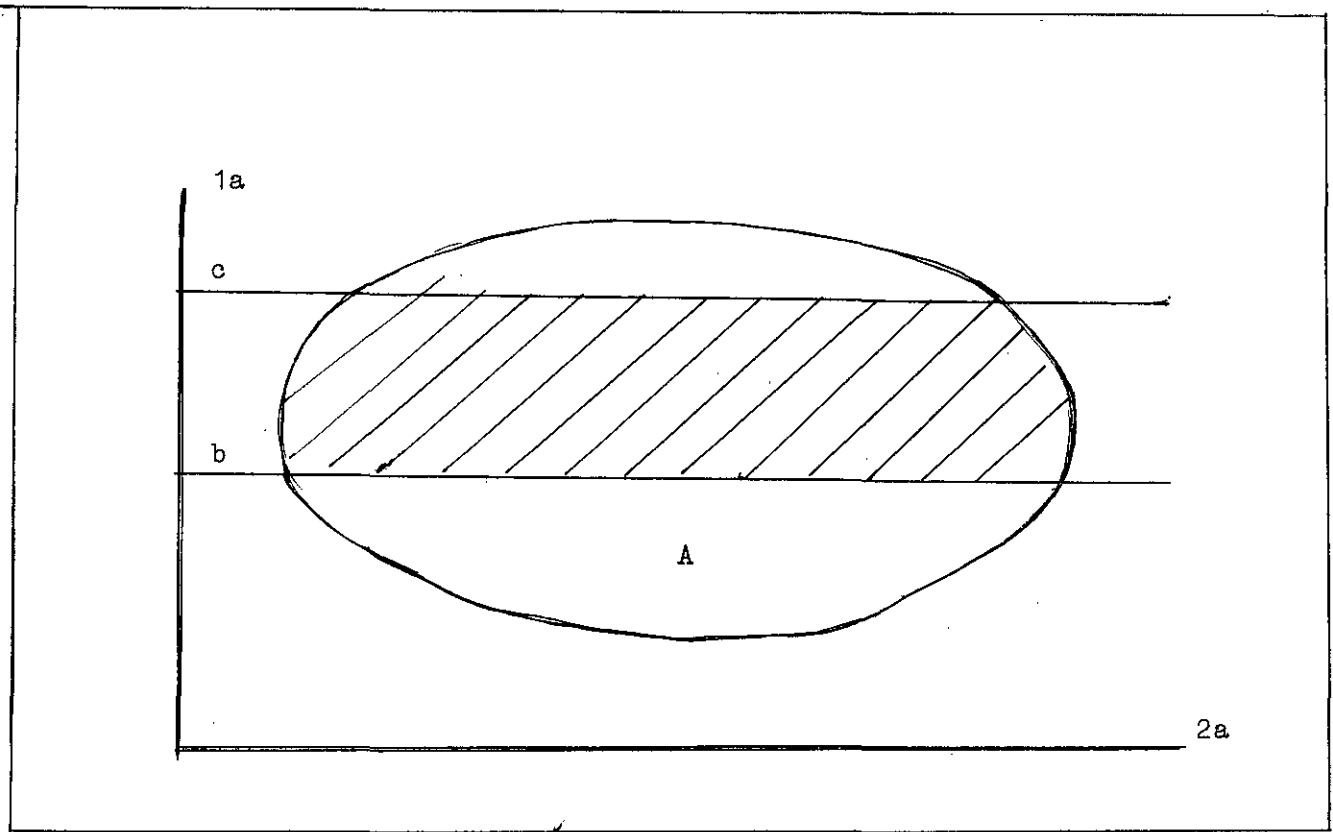


Diagram II.

It is however necessary to have an explicit representation of production units. In the discrete compact case, if there are N enterprises, production units are identified with the first N integers. In the continuous and compact case discussed in this section, they are identified with points of the $(0,1)$ interval. The length of each segment of this interval can be thought of as the proportion of the aggregate capital stock which is held by the enterprises in this interval.

A production unit is then described by an identifying number e ($0 \leq e \leq 1$); by the technical coefficients $(I_{Ie} \cdot x_{2e})$ of the technique it embodies; and by a number equal to the output capital coefficient of the production unit. It must be remarked that the latter coefficient is meaningless if production is possible without capital. If this were the case, it would be necessary to use another indicator for identification of production units, which in practice will always be possible.

Let the $(0,1)$ interval be described by the symbol E . Then a production plan is an order to activate only enterprises in a subset D of E . Let $X(D)$ be the aggregate commodity bundle produced. As was the case for the functions $X(M)$, it is clear that in the absence of interaction between production units, the function $X(D)$ will have the property $X(D_1 \cup D_2) = X(D_1) + X(D_2)$.

The fact that production units are arbitrarily small implies that every set of production units which holds a positive fraction of the available capital stock contains a smaller subset holding a strictly smaller but not zero fraction of the stock. In the mathematical terminology, the set of production units is then said to be atomless.

It is then possible to state the basic lemmas.

Lemma I. Under the assumption made, if $X(A)$ is the commodity bundle produced when all production units are activated, then there is a subset D of E such that activating the production units in D produces and output of good (0) equal to $X(A)/2$, and consumes amounts of factor (I) equal to $X_I(A)/2$.

Proof : Let A be the set of existing techniques. Then picking any pair of numbers b, c defines three subsets U, V, W of A (possibly empty).

- U is the set of techniques whose technical coefficient x_{Ia} is exactly equal to c
- W is the set of techniques whose technical coefficient x_{Ia} is exactly equal to b
- V is the set of techniques whose technical coefficient x_{Ia} satisfies the inequality $b < x_{Ia} < c$.

The commodity bundles $X(U)$, $X(V)$, $X(W)$ may be positive or zero. E.g. $X(U)$ might be positive if finite capacity had been installed using a technique using exactly c units of factor I per unit of output.

It will always be possible to pick pairs of numbers $b \leq c$ such that $X_0(U) + X_0(V) + X_0(W) \gg X_0(A)/2$. $X_0(U) \leq X_0(A)/2$. Let D_u , D_v , D_w be the sets of production units associated with techniques in U , V , W . Then it will always be possible to produce exactly $X_0(A)/2$ units of the good by activating

production units in a subset $D_u^* \subseteq D_u$

all production units in D_v

production units in a subset $D_w^* \subseteq D_w$

Now evaluate the input of factor I . If this exceeds $X_I(A)/2$, it is natural to think of replacing production units with a large specific input of (I) by units with a low specific input. This can be done by replacing units in W or just below. Let B/B^* denote the complement of a set B^* with respect to set B . Then if $X_I(D_w^*) \neq 0$, $X_I(D_u/D_u^*) \neq 0$, it would be appropriate to deactivate production units in D_w and to replace them by units in D_u/D_u^* , taking care to keep production constant. If $X_I(D_w^*) = 0$, $X_I(D_u/D_u^*) = 0$, then the values of b , c should be reduced, still taking care to ensure that the production of units newly activated is equal to that of units deactivated as b , c are reduced.

This process will reduce b , c from initial values where c is an upper bound to A , to terminal values where b is a lower bound to A . As the process takes place, aggregate use of factor I will fall from a level which exceeds $X_I(A)/2$ to one which is less than this value. (initially, only production units whose specific consumption of (I) is not less than the average for the whole economy are activated; at the end no unit activated has a specific consumption above this average). The consumption of factor I will assume all values between the initial and the terminal values. Hence at some stage the set of activated units will consume exactly $X_I(A)/2$ units of (I) .

Lemma 2. Under the assumptions made, it is possible to form composite production units with identical output input coefficients vectors, indefinitely divisible into smaller units.

Proof : the proof is by induction. Apply lemma 1 to E to form subsets $E_1 = D_w^* U D_v U D_u^*$, $E_2 = E/E_1$, which use identical quantities of factor one to produce identical quantities of good 0. Apply it once again to the two subsets to form four subsets E_{11} , E_{12} , E_{21} , E_{22} , etc. The lemma may be applied an arbitrary number of times, defining at each stage a composite set of production units which use equal quantities of (I) to produce identical quantities of (0) . As each subset can itself be subdivided into smaller non empty subsets, the set of composite production units is atomless. The consumption of factor (2) of these composite units is well defined, and so is their stock of capital.

The procedure can therefore be repeated to form new composite units with equal technical coefficients vectors. The initial production units have been rearranged to form arbitrarily small composite units which are completely identical from the point of view of their technical coefficients vectors. The proof is valid for any finite dimensional technical coefficients vectors.

It is evident that

Theorem I If t is any number between zero and one, and $X(A)$ is the commodity bundle produced if all production units are activated, then there exists a production program such that the resulting aggregate production is $tX(A)$.

Proof : the composite production units may be divided indefinitely into units with identical technical coefficients vectors. It is enough to activate composite units able to produce $tX_I(A)$, which will always be possible. Then consumption of factors (1) and (2) will be $tX_I(A)$ and $tX_2(A)$.

*
* * *

The highly restrictive assumption has been made that production units can either produce nothing, or produce commodities in uniquely determined proportions. It is time to replace this assumption by a more general and satisfactory one. We now assume that each production unit is able to choose any vector of output capital ratios and input capital ratios in a compact set which characterizes its technological capabilities.

Other assumptions are unchanged, in particular the assumption of absence of interaction between production units. We can now state the generalized form of Lyapunov's theorem, which states that

Theorem 2. If P_I, P_2 are plans assigning to each production unit a point in its technological set, and $X(P_I), X(P_2)$ are the resulting commodity bundles, then there exists a plan P_3 such that the aggregate commodity bundle produced $X(P_3) = tX(P_I) + tX(P_I) + (I-t)X(P_2)$ where t is an arbitrary number between zero and one.

Proof : associate with each production unit a $2n$ components vector, where the first n components are the ratios of outputs and inputs to capital stock under plan P_I , and the last n these ratios for plan P_2 .

Then theorem I implies that there will be a subset D such that production units in that subset are capable either of producing a fraction t of the aggregate commodity bundle $X(P_I)$ produced according to plan P_I , or an identical fraction t of the aggregate commodity bundle $X(P_2)$. The remaining production units in E/D are capable of producing a fraction $(I - t)$ of $X(P_I)$, $X(P_2)$.

By assigning production units in D the tasks assigned to them in plan P_1 , and to those in E/D the tasks assigned in plan P_2 , planners will obtain an aggregate commodity bundle $tX(P_1) + (1-t)X(P_2) = X(P_3)$.

We merely state the technical theorem, which assures that efficient aggregate plans exist.

Theorem 3. Under the assumptions made, the set of aggregate commodity bundles which can be produced is compact.

Of fundamental economic importance is however the decentralization theorem

Theorem 4. If prices are positive, then profit maximization by production units leads to production of an efficient aggregate commodity bundle. It is possible to associate with every efficient point of the set of aggregate commodity bundles a non negative price vector such that the plan assignments to production units maximize their profits.

The proof will not be discussed. Its logic is exactly the same as in the case where there is a finite number of enterprises. A rigorous proof can be constructed using the technique used by H. Richter (1963) to prove compactness.

Concluding remarks.

If prices are to be a major instrument in directing a planned economy, it is to be expected that they will be used as part of incentive schemes in which enterprises are expected to maximize profits at accounting prices announced some years in advance, their freedom of action being subjected to some extent to quantitative controls. Implementation of such schemes will encounter serious difficulties, because planners will find it difficult to choose prices properly. Another difficulty, on which this paper is centered, is that the production sets for several years of enterprises are probably sharply non convex. Theory then

indicates that there may exist no prices such that profit maximization is consistent with achievement of a particular efficient plan.

We have examined the idea that it is not only non convexity of individual production sets which matters in this respect, but also the size of individual production units. For small units - units which are a small part of their respective industries - lack of convexity of individual production sets does not limit seriously the effectiveness of prices as a means for steering a planned economy.

The optimal model of a planned economy is thus an organization in which large enterprises remain subjected to close quantitative control, while smaller production units are left to maximize their profits at suitably chosen prices. There is reason to think that as development proceeds, the relative size of the "small production units sector" increases, and that the scope for using the price mechanism to guide production increases.

Casual observation of Soviet type planning shows that in fact small production units do tend to be controlled much less closely from the center than large ones. The reason is probably information costs - the central planners' desire to avoid being overburdened by detailed decisions - rather than a perception of the fact that quantitative planning is less necessary for small than for large enterprises. However the fact that even now small enterprises are subjected to rather distant control should increase the acceptability of a proposal which enhances the role of prices mainly in the guidance of small production units.

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BIBLIOGRAPHY

- AUMANN, R.J. - Integrals of set valued functions, Journal of Mathematical Analysis and Applications, 1965, p. 1-12.
- AUMANN, R.J. - Markets with a continuum of traders, Econometrica, 1964, p.39-50.
- BLACKWELL, D. - The range of certain vector integrals, Proceedings of the American Mathematical Society, 1951, p. 390-395.
- DUBINS, L.E., SPANIER, E.H. - How to cut a cake fairly, American Mathematical Monthly, 1961, p. 1-17.
- FARRELL, M.J. - The convexity assumption and the theory of competitive markets, Journal of Political Economy, 1959, p. 377-391.
- HILDENBRAND, W. - Pareto optimality for a measure space of economic agents, International Economic Review, 1969, p. 363-371.
- HOUTHAKKER, H. - The Pareto distribution and the Cobb Douglas production function in activity analysis, Review of Economic Studies, 1955-1956.
- JOHANSEN, L. - Outline of an approach to production studies, Memorandum of the Oslo University Institute of Economics, April, 28, 1969.
- KOOPMANS, T.C. - Three essays on the state of economic science, McGraw Hill, 1957.
- LANGE, O, TAYLOR, F.M. - On the economic theory of socialism, Minneapolis, 1938.
- LYAPUNOV, A. - Sur les fonctions vecteurs complètement additives, Bull. Acad. Sc. U.R.S.S., Sér. Math 4, p. 465 ff. (1940).
- RICHTER, H. - Verallgemeinerung eines Satzes der Masstheorie, Math. Annalen, 1963, 150, p. 85-90.
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REFORMES ET MECANISMES ECONOMIQUES EN EUROPE ORIENTALE

Colloque organisé à l'Institut de Sociologie, les 8 et 9 octobre 1970.
(avenue Jeanne, 44 - 1050 Bruxelles).

ECONOMICS AND POLITICS OF REFORMS

IN EASTERN EUROPE

by

Janusz G. ZIELINSKI,
University of Glasgow

Glasgow, June 1970.

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1. Two Types of Economic Reforms.

As a criterion for classifying economic reforms we shall use the type of management mechanism used. By management mechanism we understand here a system of interrelated tools of economic policy used for directing the economic activities of plan executants (1, p. 147-169 and 2, p. 185-226).

Two basic types of management mechanism may be distinguished, namely parametric and non-parametric ones. The criterion of this division is the type of information carriers used by the Central Planning Board to transmit information to plan executants. If the Central Planning Board guides plan executants by changing prices, wages, taxes, interest rates, etc. - so-called economic parameters - then we describe the management mechanism as a parametric one. If, on the other hand, the Central Planning Board guides the plan fulfilment using mainly administrative orders, direct planning task, then we face non-parametric management mechanism.

This dichotomic division of management mechanisms into two groups: - parametric and non-parametric - leaves unanswered, however, the important question how the parameters are determined - by the Central Planning Board or by the market? Depending on the answer, the parametric management mechanism can be state-parametric or market-parametric.

The analysis of economic reforms reveals that all Eastern European countries are moving away from non-parametric management mechanism towards a parametric one. At the same time, however, in spite of the fact that the economic reforms' movement in Eastern Europe is still very much in statu nascendi, two broad types of reforms already emerged. These are "guided market", or "market-parametric", type of reforms to which Hungary and Czechoslovakia subscribe, and "improvement of central planning" or "state-parametric" model - which all other Eastern European countries are following.

In spite of briefness of the time span involved, the basic features of these two types of reforms are already evident.

No type of reform is "pure", in the sense of conforming neatly to the above classification. "Guided market" reforms are based on simultaneous use of market-determined and state-determined parameters (with the declared intention of increasing the share of the former).

References.

1. ZIELINSKI, J.G., On the Theory of Socialist Planning, Oxford University Press, Ibadan, 1968.
2. Entreprise socialiste et mécanismes de gestion industrielle, in "Cahiers de l'I.S.E.A.", tome IV, n° 1, janvier 1970.

This is illustrated in Tables 1 and 2. "State parametric" reforms use not only state-determined parameters but also administrative orders on the large scale - larger than most economists realise (see Section 9,a). Here the declared intention is to increase the role of state-determined parameters at the expense of administrative orders (1).

2. Basic Differences between Two Types of Economic Reforms.

a) Heterogeneous and Homogeneous Information Carriers.

Formally speaking, both types of reforms are those of a "mixed" character. Nevertheless the difference between them is fundamental : the "state-parametric" reforms use heterogeneous types of information carriers (administrative orders and parameters), when "guided market" model is based on homogeneous information carriers - of parametric type only (state and market determined, but only parameters). This difference has profound repercussions in four spheres at least : b) character of planning; c) type of industrial organisation; d) consistency of informations transmitted and e) quality of data for economic calculation. Let us discuss these problems briefly.

b) Character of Planning.

The system which retains the use of administrative orders as information carriers has to retain also the traditional system of planning even if freed from its former excesses. As we may recall (2, p. 15-23), the characteristic features of traditional planning system consist of :

- 1) Universal character of planning, which means that there is universal system of plan consisting of a separate plan for each unit of the national economy and that all these units have to take part in plan construction;
- 2) Traditional system of planning requires also three-stage plan construction at the Central Planning Board level : a) Macro-planning at the central level. On the basis of this calculation so called guidelines for planning are formulated for the lower units, down to every enterprise; b) Aggregation and verification of plans received from the lower units; c) Formulation of the final plan and its transmission to the lower units.

(1) From what we have just said, it is obvious that the names "market-parametric" and "state-parametric" models, are quite misleading. The first should be called "mixed, state-market parametric model", the second "mixed, administrative-state parametric model". For the sake of brevity we are using the prevailing terminology, but the true character of the models under discussion should be constantly kept in mind.

This type of planning still prevails to-day in all countries adhering to "state-parametric" type of reforms. On the other hand, the "guided market" reformers who rejected the use of administrative orders, have been able to abolish both features of traditional planning system. There is no longer a universal system of interrelated plans, and plan construction is now limited to the macro-planning at the center, which is being implemented by a complex set of tools of economic policy rather than obligatory plan directives.

c) Type of Industrial Organisation.

The "state-parametric" model is characterised by relying on branch organisations, so-called industrial associations, as a basic unit of plan-carrying apparatus. Under this model, industrial associations is sensu stricto the enterprise. So-called enterprises are in fact divisions or firms within a bigger unit. On the other hand, followers of the "guided market" model, i.e. Czechoslovakia and Hungary, base their reform on individual enterprises and have dissolved industrial associations as compulsory organisations having administrative and/or economic powers over their member enterprises.

There are good reasons why followers of different types of economic reforms have chosen different forms of industrial organisation. The choice between industrial organisation based on industrial associations or an individual enterprises reflects the Central Planning Board readiness to rely on market mechanism. As some Polish economists aptly noticed, if Central Planning Board decides "to entrust the shaping of economic relations between enterprise to market mechanism that, obviously, does not preclude intervening in market functioning through price policy and other measures" then it chooses enterprise model of plan-carrying apparatus. If, on the other hand, the Central Planning Board wants "to create organised set of relations, in which - alongside with the market - there is a possibility of more direct shaping (i.e. by the use of administrative orders - J.G.Z.) of social division of labour and factors of technical and economic development" then it opts for industrial associations model. (both quotations from 1, p. 45).

d) Consistency of Information Transmitted.

The homogeneity or heterogeneity of information carriers and their type are of basic importance for the consistency of information transmitted.

a) The use of heterogeneous information carriers inevitably leads to simultaneous use of different information carriers for transmitting the same information to plan executants. Today it is, however, impossible to assure that these different carriers transmit exactly the same information. As a result, say, product-mix as determined by administrative orders differs from the product mix which would result from a profit maximising behaviour with given prices. In other words we have more equations than unknowns : the solution is over-determined. On the other hand the use of economic-parameters only leaves the room for adaptive processes; on the part of supply and demand if only state-

determined fixed parameters are used, and of supply, demand and market-determined parameters - if both types of parameters are used. The same would be true - only to a greater extent - if part of state-determined parameters were of maximum ceiling and/or minimum floor type (see Tables 1 and 2). As a result, parametric system avoids contradictions in informations transmitted, which are inherent in the use of heterogeneous information carriers. This will be discussed further in Section 9, a).

b) The use of homogeneous information carriers can assure informational consistency only if information carriers of parametric type are used. The exclusive use of administrative orders does not assure these results for the same reasons that we have contradictory orders in any sphere of activity. Parameters being informations only, always leave room for adaptive processes - even if this adaptation means going out of business. Administrative orders, being orders, do not necessarily leave room for proper adjustments and may well require contradictory actions, say, profit increases and unprofitable changes in enterprise product-mix to be achieved simultaneously.

c) Quality of Data for Economic Calculation.

Finally, there are the consequences of the use of heterogeneous information carriers on the quality of economic parameters. The essence of the problem again consists of leaving - or not leaving - room for adaptive processes. Administrative orders combined with state-determined parameters eventually results in that the relation of the latter to scarcity prices becomes unknown and any meaningful economic calculation - impossible. This is due to the fact that joint use of administrative orders and state-fixed parameters breaks relations between supply, demand and price, because, at present the Central Planning Board is unable to coordinate properly its administrative orders and price policy and this problem will not be solved before optimal mathematical programming on the national scale becomes possible.

Theoretically there are two ways out of this dilemma. One consists of relying exclusively on the use of parametric information carriers. The use of state - or partly state - partly market - determined, parameters does not preclude their being scarcity prices, if only supply and demand are not being tempered with by administrative orders, at the same time. Needless to say, the scarcities which equilibrium state-determined prices are reflecting are ceteris paribus "produced" by given price policy, but it is another matter. The other way out is to determine the structure of supply by administrative orders, but leave prices and demand free to adapt to it, in the manner similar to that now used in consumer goods market. The direct determination of output is, however, very complex, it suffers from the dangers that the orders issued may be internally inconsistent (see point (d) above) and moreover, it is practically impossible to determine output unequivocally by administrative orders and total price "neutrality" in the sense that enterprises' complete insensitivity to prices - a dream of many East European planners - is unattainable. This inevitably creates further contradiction, namely between supply-determining administrative orders and market determined parameters which cease to be the mere reflection of administratively-determined supply, but start to develop the feed-back effect.

All these considerations must have played their role in adoption of the "guided market" model of economic reforms by Hungary and Czechoslovakia.

From what we have said above it is quite evident that the choice of one or the other type of reforms a) reflects fundamental differences in reforms goals; b) carries widely different prospect of success and - on the socio-political front - c) implies different role of the Party in economic life. Needless to say, these differences are usually not discussed openly in such terms except when - as was the case with Czechoslovakia - it is needed as a part of political struggle against one of the COMECON country.

References.

1. PAJESTKA, J., SECOMSKI, K., Doskonalenie planowania i funckjonowania gospodarki w Polsce Ludowej (Improvements of Planning and Functioning of the Economy in People's Poland), Warsaw, 1968.
2. ZIELINSKI, J.G., On the Theory of Socialist Planning, Oxford University Press, Ibadan, 1968.

3. Computer instead of the Guided Market ?

It is frequently argued in East Europe and elsewhere that development of mathematical techniques and electronic data processing (EDP) changed the relative prospects between the two types of economic reforms described in Sections 1 and 2, in favour of "improvement of central planning" type. I think that this view is based on three basic misunderstandings :

- a) that mathematical techniques and EDP are already - or will be shortly - of major importance in planning practice;
- b) that mathematical techniques and EDP can be used to improve existing planning practice, without requiring any fundamental revision of the latter's scope and character;
- c) it disregards the motivational consequences of centralised planning, mathematical or otherwise, and hence the problems of innovations and inventions.

Ad. a) There is a practically unanimous view among more sophisticated planners and mathematical economists that mathematical techniques have, and will have in the foreseeable future, only a limited and supplementary role in central planning. This e.g. has been unequivocally stated at a recent (1967) Polish Academy of Sciences conference on methods of improving planning and management of national economy. "... both our preparation and our informational basis prevent any significant use of optimizing techniques in 5-year plan construction for 1970-1975... I personally doubt if even in plan building for 1976-1980, these methods will play any role of real importance" (3, p. 376). The prospects for improving plan consistency through the use of input-output technique - much less ambitious task than plan optimization - are only slightly better. So far in Poland mainly statistical, i.e. ex post, rather than planning, i.e. ex ante, input-output tables have been constructed (7, 236) and many difficult problems must be solved before input-output tables will have any operational planning value (see 5, 7, 11, p. 21-23). The impact of ex-post input-output tables, even relatively big one, as Polish 1962 table 142 x 142, has thus far been disappointingly small (1).

The reasons for this state of affairs are numerous. The planners themselves point to the following :

- 1. lack of proper, trustworthy informations, which can be fed into available models (6, 9, 2);
- 2. if one thinks of optimizing models on the scale of national economic plan, there are neither such models of any practical value nor EDP equipment powerful enough to do the calculations which would be necessary [1];
- 3. planning calculations done on big aggregates do not always lead to optimal solutions which have practical value. "Experience indicates that conclusions from (aggregate) models cannot be considered as fully valid" (6, p. 384). "If a solving (aggregate) model even produces results better than the results obtained by traditional planning calculations, we cannot be sure if the former solution is practically feasible, because it is based on aggregated or average data (parameters, limits, etc.)" (8, p. 414). Frequently "... it is difficult

to understand what is the impact (on results obtained) of a model's simplified assumptions, and these assumptions are multiple" (6, p. 384)

Ad b) The many and profound difficulties of using modern mathematical techniques and EDP for central planning are multiplied in socialist countries by the very broad scope of central planning and its directive character. If one wants to disaggregate the calculations done at macro-level to individual enterprises - as our present planning practice requires - there are no technical possibilities available, either now or in the foreseeable future (7, 11, p. 21-23).

There seems to exist a paradoxical relation between the scope of central planning and the appropriate planning technique. Namely, the broader the scope of central planning (and hence the more difficult its tasks), the more primitive the planning techniques must employ. It sounds paradoxical, to say the least, but is nevertheless true. The reason for this is obvious: sophisticated planning techniques are unable at present to cope with a quantitative task of the dimension of our yearly plan. A task of this dimension can only be approached by an administrative iterative process, with sophisticated quantitative techniques playing only a very supplementary role. So the scope of central planning determines the planning technique that can be used, and the latter predetermines the quality of quantitative calculations (the possibility or impossibility of reaching fully consistent solutions). This paradox explains why less comprehensive national economic plans can make fuller use of more advanced planning techniques, the fact admitted even by some Polish economist (2). It also indicates that one of the most effective steps towards a broader use of mathematical models in central planning would be to reduce its task to feasible dimensions, namely macro-planning only. This also means that effective introduction of mathematical models to central planning is complementary to market-type economic reforms and not its substitute, the problem to which we shall return briefly later.

Ad c) Even if "mathematical solution" would be practically possible - which cannot be expected in the foreseeable future - it would leave unsolved the problem of motivation, and hence of innovations and inventions. It would not be a satisfactory solution for long to be on - or rather - relatively close to one's production possibilities frontier, if the frontier itself is not moving in a north-east direction at the speed at least comparable to that achieved by market economies. In other words, if improvements in technical coefficients and changes in national product-mix lag behind other countries due to lack of innovations and inventions. As experience of traditional economic system shown (see Appendix 5), the rate of technical progress is slow under an administrative system. The present author does not see any reason why it should be any better under an administrative system based on mathematical models rather than on an institutional iterative process. I agree that potential initial savings are very great indeed. But the best mathematical models invent neither new technologies nor new products and these problems are crucial for dynamic efficiency in the longer run. For this reason, development of mathematical models for central planning should be considered as complementary to institutional economic reforms, but never as their substitute.

References :

1. BILINSKI, L., Discussion in /4, p. 402-404.
2. BUCH, W., Discussion in /4, p. 405-408.
3. HERER, W., Discussion in /4, p. 372-376.
4. Kierunki usprawnień metod planowania i zarządzania gospodarką narodową, (On Methods for Improvement of Planning and Management of National Economy), Warsaw, 1968.
5. PAJESTKA, J., Utilization of Input-Output Tables for balancing the Plan and for Structural Analysis, Ekonomista, n° 6, 1964.
6. --- , Discussion, in /4, p. 382-385.
7. PORWIT, K., Planning in Poland. Central School of Planning and Statistics, Advanced Course in National Economic Planning, Teaching Materials, vol. 18, Warsaw, 1967; Mimeograph. In English.
8. --- , Discussion, in /4, p. 413-414.
9. RAKOWSKI, M., Discussion, in /4, p. 386-389.
10. WYROZEMBSKI, Z., Discussion, in /4, p. 390-394.
11. ZIELINSKI, J.G., On the Theory of Socialist Planning, Oxford University Press, Ibadan, 1968.

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- (1) "A few years have already elapsed since the input-output table for 1962 was elaborated, but till now it has not been used for tracing impact of individual planning decisions on national economy as a whole" (3, p. 376).
 - (2) "In some capitalist countries economic planning is developing and - we have to say this quite frankly - planning methods applied there are more scientific than those used in socialist countries" (10, p. 391).

4. Two Approaches to the Problem of Reforms' Aims and their Implementation.

The study of economic reforms' blueprints of Eastern European countries reveals interesting differences in their views on the character of the transition period as well as on the depth of changes intended. The countries planning ambitious reforms, such as Bulgaria (1), Czechoslovakia and Hungary, talk about definite and relatively short (3-4 years) transition periods and stress that profound changes are needed, that the new economic system will represent qualitatively new phenomenon. On the other hand, "cautious reformers" (G.D.R. Poland and Rumania) tend to present reforms as slow, evolutionary process of constant improvements. This difference can well be seen by comparing the following statements :

Dialectics indicate that a given social phenomenon may be improved only as long as it did not outlive itself... Improvements do not change the qualitative characteristics of the phenomenon... This pertains to our former system (of planning and management) as long as it was in the phase of improvements. The new system in its entirety, only as a whole... represents qualitatively new phenomenon. (4, p. 428).

The same ideas as Toder Zivkov's were expressed by the Central Committee of the Hungarian Communist Party in the very same year :

... New mechanism consists of a number of elements which are interrelated and which can have a beneficial influence on the economy only if applied together. Therefore particular elements cannot be introduced separately, in different periods. Basic elements of the new economic mechanism should be put into practice from January 1st, 1968, after careful, time requiring preparations. Hence years 1966 and 1967 are the period of preparation and the next two years (1968 and 1969) will be devoted to the development of the new mechanism (3, p. 312).

And here is the Polish semi-official view :

... Poland bases her reforms' implementation on the principles of evolutionary changes consisting of experiments, of introducing new solutions of limited scope... Reforms' implementation is considered as a constant process... The reforms being carried on in Poland are not based on any new theoretical or dieological orientation but mainly on practical observations... (1, p. 13, 6, 5. Authors' italics).

It is not difficult to explain why the same "dialectics" lead Bulgaria and Hungary to completely different conclusions from that of Poland or the German Democratic Republic. Only countires embarking on fundamental reforms can afford politically a) to criticise the previous system severely, and b) to talk of definite transition period. The others have to try to convince their populations that in spite of the fact that the reforms are hardly noticeable they are, nevertheless, profound :

"Changes which have been implemented (in 1959-1965) were not as radical as that 1955-1958 and hence were maybe not as noticeable - writes one of the Polish economists -. Nevertheless they were not less important than this first wave of reforms" (2, p. 25).

We doubt that even the author of this statement believes it.

References :

1. PAJESTKA, J., SECOMSKI, K., Doskonalenie planowania i funkcjonowania gospodarki w Polsce Ludowej (Improvements of Planning and Functioning of the Economy in People's Poland), Warsaw, 1968.
2. SZELIGA, Z., Kierunki i zalozenia reformy (Directions and Assumptions of Reform), Warsaw, 1965.
3. Resolution of Central Committee of Hungarian Communist Party on Reform of Economic Mechanism in LEWANDOWICZ, Z., MISIAK, M. (eds) : Reformy gospodarcze w krajach socjalistycznych (Economic Reforms in Socialist Countries), Warsaw, 1967.
4. ZIWKOW, T., New System of Management of National Economy in LEWANDOWICZ and MISIAK, op. cit., p. 424-435.

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- (1) Initially it seemed as if Bulgaria was aiming for a "guided market" model. Presently she is hesitating between the two models, increasingly moving towards "state-parametric" solution.

5. Some Problems of Transition.

a) Transition Problems of Overall, Comprehensive Reforms.

Even assuming that a comprehensive reform is intended, its implementation must take several years and so the problem of optimal sequence of change arises.

The problem of optimal sequence in implementing different parts of the new system is terra incognita to a large extent. The discussion thus far hardly went beyond the thesis that "price reform is a necessary prerequisite of successful economic reforms". It is a very partial truth, however.

It may be very difficult to implement effective price reform at the very initial stage of general economic reforms. It is almost impossible to predict the new scarcity relations, which will develop after introducing the new system. The thesis must be understood that the first stage of price reform should be implemented at the beginning of the new system. The subsequent rounds will have to follow later on.

There is no optimal price system per se, irrespective of the management formula used, and especially irrespective of the success indicator used (1). It is now generally recognised that under a gross output success indicator, equilibrium price, practically cannot be found (the higher the price, the bigger the demand). The same, however, may be true under a profit-based success indicator, if other elements of management formula counter-balance its proper functioning. (These other elements may consist of individual cost-plus pricing combined with the use of profit as a planned target which is being corrected according to actual cost-level). From this can be seen that we have here a two-way inter-relationship : price reform is a necessary prerequisite of economic reforms, but, at the same time, there cannot be a successful price reform if the management formula is not changed simultaneously in such a way, as to make an effective price reform possible..

The thesis that the price reform is a necessary prerequisite of successful economic reform does not exhaust, by far, the required knowledge about the optimal sequence of change. To determine it, the interrelationships between different parts of the management mechanism and within the management rules have to be studied.

It seems that the theoretical rules one should adhere to are the following :

1) First all, one should look for - and change - these elements of the system, which we shall call basic determinants of enterprise behaviour. The characteristic feature of basic determinants is that they induce certain pattern of behaviour, practically irrespective of how other elements of management formula are shaped. For example, the principle of yearly plan targets as a success indicator and a basis for managerial bonus system, gives rise to hiding reserves, bargaining for low output - high input plan etc. irrespective of the construction of management rules. Whatever the success indicator used -

gross output, total profit, cost-revenue ratio, value added, etc. - and whatever the managerial bonus system - the negative consequences of yearly plan target cannot be eliminated. The same is true of pure international pricing, which practically eliminates the pressure to economize. At this moment, however, it is enough to stress that one has to start reforming the system by changing basic determinants of enterprise behaviour. The reasons are twofold: a) changing basic determinants creates conditions for effective introduction of new management rules; b) it unleashes spontaneous forces of economic behaviour even before formal changes in management rules are introduced. It is easy to see that the very abolishing of yearly plan targets - even with gross output success indicator - would give rise to change in behaviour in, generally speaking, economically desirable directions (within limits of given management formula).

2) If the new management mechanism and/or management formula cannot - for these or other reasons - be introduced as a whole, changes have to be instituted in "blocks", which should include all of the most directly interrelated elements. The more interrelated is a given block of changes with other parts of the system, the sooner the next block of changes should follow, to prevent "rejecting the transplant" or making it ineffectual. An example may be here in order. If reform of a basic managerial bonus system is under consideration, the minimum block of changes should include : a) all incentive schemes within the enterprise. Under Polish conditions these include :

- managerial bonus system itself,
- the bonus system based on the enterprise fund,
- supplementary managerial bonus system, e.g. for expert effectiveness.

b) Other parts of management rules, which have pronounced incentive effects. Under Polish conditions these include :

- rules determining the volume of wage fund,
- rules determining the volume of enterprise development fund (from which increase in circulating capital and decentralised investments are financed).

c) The incentive system of industrial associations.

What is and what is not a part of a block cannot be determined purely in abstracto, without reference to still functioning elements of management mechanism. It depends, for example, to a great extent on the actual role of yearly plan targets. To illustrate : under conditions, when the role of yearly plan targets is predominant, an incentive system of industrial associations is undoubtedly part of a "managerial bonus block", but rules determining the volume of enterprise development fund - as having little incentive effects under present system of yearly targets - could be omitted from this block with practically no harm. Under a system, however, when yearly plan targets - if any - are mainly of informative character - the contrary would be the truth.

Determination of what the next block of changes should consist of and what its urgency is, should be based on considerations of what are the other elements of managerial rules and management mechanism which can most

likely interfere with the working of the managerial bonus system. These can be found by asking what are the conditions of effective functioning of the bonus system? Two directions of investigation will lead to a proper answer to this question :

- inter-relations within the management rules especially of all problems concerned with proper functioning of success indicator which is the basis of the bonus system;
- inter-actions from the management mechanism, especially type and quality of information carriers used (quality of price signals, are there contradictions between price signals and administrative orders, etc.) and the character of macro-input system (rationing of means of production, sellers market in general, formal and actual decentralised investment possibilities, etc.).

The practical difficulties of following the above rule - of choosing the proper block of changes and supporting it on time by the next move - are many, because our knowledge of inter-relationships within management mechanism is far from perfect. More sophisticated models of management mechanism and model testing - as well as actual experimenting - of reforms envisaged, could lead to substantial improvements in optimal change sequence.

b) Transition Problems of Piecemeal Reforms.

As we have pointed out in section 4, some Eastern European countries, such as Poland, have chosen the way of evolutionary, partial changes of their management mechanism.

The attractiveness of gradual, partial approach to economic reforms is multiple :

- it seems easier than the immensely complex task of overall change,
- it seems less risky because only part of the economy and/or of management mechanism is involved,
- it seems wholly plausible, because why the sum of good elements should not result in a good whole?

On a closer examination, however, the gradual, partial approach to economic reforms is not free from a number of difficulties accompanying the implementation of reforms of "grand design" type, as well as some of its own.

The gradual, partial approach to economic reforms is usually characterised by a lack of overall, master plan, detailed enough to guide partial solution and assure their mutual consistency. The method used is to attack the basic weaknesses of the existing system and to substitute for them "better" solutions. This approach is understandable because of the complexity of the task involved. It leaves, however, something to be desired on two counts :

- consistency of the measures implemented because of the lack of detail enough overall, master plan;
- increased tendency of the system to reject and/or make ineffectual the changes introduced, because of longer time lags between blocks of changes and frequently their lesser consistency and less far reaching character. Let us discuss them in turn.

The overall, master plan should serve two purposes :

1) Answer the question, "how far dowe go ?", i.e. how radical changes in existing system will be introduced. To provide this answer it should determine :

- the scope of central plan;
- the relative authority spheres between CPB, industrial associations and enterprises;
- the basic instruments which shall be used to equilibriate the plan during its construction and to institute necessary changes during its implementation.

This is necessary for partial, detailed solutions to have approximately the same level of "far reachedness". Otherwise, some partial solutions are of more far reaching character than the others; e.g. during 1960-64 some Polish experiments were testing possible changes in management formula less radical than overall changes introduced soon after.

2) The overall, master plan serving as a reference point and a check list of partial changes should help to assure that :

- the proper blocks of changes are selected, not neglecting the basis inter-relationships of the management mechanism and management formula;
- that the optimal sequence of change is followed.

The lack of such a master plan must inevitably lead to multiple contradictions between different elements of management mechanism. These contradictions are amply illustrated in 15, p. 201-203 and lack of space prevents us from analysing them here.

The lack of consistency is, however, not the only problem which plagues the "evolutionary" type of economic reforms. The other and may be even more important one, is the phenomenon which we shall call "rejection of transplants". By this we mean that the economic system has a tendency to make partial changes wholly or partially ineffectual. This problem may be best explained with the help of example, and for this purpose we shall analyse the economic consequences of introducing in Poland the interest payments for fixed capital (interest payments for variable capital already existed). At the same time, we have to remember that in Poland enterprises' success indicator has already been changed to profit/cost ratio, so formally speaking, enterprises should be sensitive to capital charges.

From January 1st, 1966, interest payments on fixed capital were introduced in most branches of Polish industry. Its purpose at the moment is limited to an incentive aspect only. Accordingly, interest payments are not charged into costs but deducted directly from profit, and interest rates are fixed at 2,5 and 5 % level, depending on the ratio of gross profit to the value capital of fixed capital. At the same time certain changes in interest payments on working capital were introduced also, including the right of enterprises to receive interest payments on their bank deposits.

As a result of introducing interest payments, the following changes in enterprise behaviour were expected :

- selling and/or reporting to higher authorities excessive machinery and equipment;
- diminished enterprise demand for investments financed from the budget and/or industrial associations' funds;
- better economic calculation of enterprise' own investment;
- increased sensitivity to excessive accumulation of stocks both of inputs and outputs.

It is already evident that these expectations did not materialise. The question is why ? There are two possibilities for looking at this problem. One is to point out the number of deficiencies in the existing solution of interest payments (always from the viewpoint of their limited objectives). Here we can list :

1) Construction of success indicator in the form of profit/cost ratio. As a result, up to a certain point, diminished profit due to increased interest payments for excessive stock of output may be counterbalanced by cost reduction due to lower share of fixed cost per unit of output (under the assumption of constant prices).

2) Low interest rates charged. If, according to the number of sources, marginal productivity of investment in the U.S. industry is around 10 %, it is probably higher in Poland where capital is much scarcer. It is especially true for enterprise's own investments which are characterised by very high productivity. E.g. according to an official decree, bank credits for enterprise investments should be extended, as a rule, for investments showing at least 33,33 % rate of return.

3) Net basis of interest payments also weakens the incentive impact of interest.

The real reasons for the weak impact of interest payments on an enterprise's behaviour are, however, much deeper and more fundamental. They consist of :

- a) use of success indicator in a form of yearly plan target,
- b) widespread individual cost-plus pricing,
- c) low resistance of buyers to price demands due to a), b), so-called profit verification rule and existence of sellers' market,
- d) important role still played in enterprise management formula by so-called output indices, which are independent of profitability.

Given these basic facts (which are discussed in detail in 5, p. 205-125) there exist no effective formula for interest payments and no effective interest rate. Discussion on those problems - very interesting as they are for economists - will have a practical meaning only after these basic determinants of enterprise behaviour have been changed.

In the preceding discussion we have analysed the situation when a change in a proper direction, long advocated by the economists, is being introduced into management mechanism and does not produce any significant results. The question arises why? Because other parts of existing management mechanism interfere. These other parts are numerous, not always easy to identify and - most of all - not easy to change. Moreover, their very enumeration indicates that, practically speaking, fundamental and simultaneous changes on a broad front would be necessary to even make such a relatively small change as introducing payments on fixed and variable capital - really effective. The same cannot be said of many other changes of management mechanism and/or management rules. The Hungarian Central Committee is then very right indeed in insisting that different elements of the new management mechanism "... cannot be introduced separately in different periods".

6. Why Two Types of Economic Reforms have Emerged?

As it is generally agreed, the reasons why reforms become necessary were very much alike in all Eastern Europe. The question then arises why different countries try different remedies for the same illness? Unfortunately, there is no satisfactory answer to this problem, as to many others concerning economic reforms in Eastern Europe. The type of economic reform chosen does not correlate significantly with either of three variables, which one feels could be of basic relevance here, namely: level of economic development achieved, degree of political liberalisation or important social changes in the system.

If we divide roughly all six East European countries into three groups: under-developed (Bulgaria, Rumania), medium developed (Hungary, Poland) and highly developed (Czechoslovakia, German Democratic Republic) - see Table 3 - then we shall immediately see that type of reform chosen does not coincide at all with the level of economic development achieved. State-parametric reforms are followed by both highly developed German Democratic Republic and under-developed Rumania: market-parametric - by industrialised Czechoslovakia, medium-developed Hungary, with still predominantly agricultural Bulgaria hesitating between the two.

Another hypothesis which sounds very plausible is to expect correlation between political liberalisation and market-type economic reforms. Political liberalisation is much harder to measure than the level of economic development, but not impossible. A number of indices can be used for this purpose, from ease of travelling abroad to accessibility of foreign press, to degree of censorship, etc. For our purpose an even more imperfect index - consensus of people who know intimately the countries concerned - must suffice. Unfortunately, again there seems to be not significant correlations between these two variables in different countries, and only slightly better correlation within individual countries.

If we put it more broadly and try to trace relationships between political liberalisation and economic decentralisation then - on the basis of past history of economic reform in Eastern Europe - the following picture emerges :

1) Political liberalisation leads, as a rule, to certain economic decentralisation (e.g. Czechoslovakia, Hungary, Poland, Soviet Union) and vice-versa - political de-liberalisation leads to economic re-centralisation or at least to halting of economic reforms (e.g. Poland from 1960 on). Thus far we had not witnessed political liberalisation without economic decentralisation. The contrary is not true, however, because there are economic reforms in progress without any significant signs of political liberalisation, e.g. in German Democratic Republic or Bulgaria and Rumania. These reforms, however, are of state-parametric type.

2) Market-parametric type of reforms' proposals usually coincide with the peak of political liberalisation as in Poland 1956-58, and Czechoslovakia 1967-68. Oddly enough, the most advanced reforms of market-parametric type are in Hungary which represents medium-level of political liberalisation, if the German Democratic Republic is taken as one extreme, and the Czechoslovak spring as the other.

3) Economic decentralisation probably creates a social and economic basis for political liberalisation, making it more stable (Yugoslavia). Without it, political liberalisation can be relatively easily withdrawn completely (Poland, 1968).

4) Similar levels of political liberalisation (however measured) can co-exist with substantially different levels of economic decentralisation and vice-versa. If, for example, we take Poland and Hungary in 1966 : at that time both countries enjoyed similar levels of political liberalisation being the most liberal in Eastern Europe. The economic reforms they had enacted that year, were, however, miles apart : Hungarians striving for radical changes of market-type, Poles formulating very partial, state-parametric reforms. If, on the other hand, we shall take Czechoslovakia and Bulgaria in 1967, we have an example of two countries representing quite different level of political liberalisation and, nevertheless, putting forward very similar economic reforms. It may be significant, however, that evolution of these countries took completely different courses : in 1968 a sudden acceleration of de-liberalisation of political life in Poland ended the long period during which Poland still remained one of the most liberal of Eastern European countries, in spite of being one of the most conservative on the economic front; Hungary remained relatively liberal in spite of the wave of re-Stalinisation in their neighbours; Bulgarian reforms took more and more state-parametric character; Czechoslovakia's political and economic reforms were progressing together towards a more and more liberal market model until the Russian intervention.

This different evolution may suggest that those "strange" combinations of political conservatism and economic decentralisation (e.g. Bulgaria in 1966-67) or vice-versa (e.g. Poland in 1960-67) represent unstable equilibria. It may be that we are encountering here time lags only which blur

the true relationship between political and economic decentralisation. Unfortunately, the history of economic reforms in East Europe is too short and the number of cases too small to answer this question.

The third variable which is worthwhile to examine in our quest for the answer "why do we witness two different types of economic reforms in Eastern Europe" are the important social changes accompanying reforms. Undoubtedly the most important of such a change is the creation of workers councils in the course of economic reforms. Only the workers councils, if entrenched, could constitute the social force powerful enough to defend economic reforms against efforts of party and state bureaucracy to revert to old administrative methods of management. Here again the picture is not clear. The only lasting market-type reforms in Eastern Europe are, so far, Yugoslav reforms based on workers councils. Two other far reaching reform efforts in Eastern Europe - Polish and Czechoslovak - were intimately connected with the workers councils movement during their "heroic" periods. In Poland de facto abolishment of workers councils in 1958-59 by making them a part of broader body - so-called conferences of workers' self-management - together with Communist Party and Trade Unions representatives, was the first and crucial step in halting economic reforms movement. In Czechoslovakia, creation and activation of workers councils, was an important element in accelerating economic reforms from the half-hearted pace of the last years of Novotny rule 1966-67, to the sweeping changes envisaged by the Dubcek regime in 1968 (3). At the same time, however, the most advanced economic reforms in Eastern Europe outside Yugoslavia, Hungarian reforms, are progressing without workers movement at all. This may be the reason why substantial and far reaching economic reforms in Hungary are not accompanied by anything similar on the political front and, on the other hand, why they are tolerated by other socialist countries.

To sum up, there is no clear cut answer to why different countries have chosen different types of reforms. Historical experience showed, without any doubt, that traditional management mechanism became a crucial, but not the only, obstacle to growth. It did not indicate unequivocally, however, the direction of change. All countries realised, that it is necessary to abandon direct, administrative planning and move to broader use of so-called "economic tools" in their management mechanism. Should, however, these tools be based primarily on the use of market mechanism or be of state-parametric type, has not been decided uniformly in all Eastern Europe. We are inclined to think, moreover, that if a market or state-parametric model finally prevails, it will be not exclusively due to its economic merits or demerits, but equally important will be its political and social implications. It is, however, a hypothesis for which we do not have fully valid scientific proof.

7. The Changing Character of Reforms' Objectives.

The aims of economic reforms do not remain unchanged over time, their changing character being especially evident in countries with a longer history of economic reforms, such as Yugoslavia and Poland. Again, however, there is no regularity in this evolution. In some countries, such as Poland, the reforms started with very ambitious goals, which then became not only more and more modest as time went by, but also changed their character - from market to state-parametric - so now they hardly resemble the initial blueprint.

In other countries, like Czechoslovakia, reforms started with relatively modest aims (under Novotny) and then both their aims and implementations gathered momentum far beyond what was originally intended. In the German Democratic Republic and Hungary, the original reforms blueprints envisaged progressive stages of reforms implementation and thus far the actual state of affairs conforms more or less to reforms plans.

The evolution of economic reforms' aims in individual countries shows better correlation with character of their political evolution, than the same analysis between countries. E.g. in Czechoslovakia increasing political liberalisation was accompanied by radicalisation of economic reforms aims towards a more far reaching guided-market model. Parallel to the unchanged political situation in German Democratic Republic is the unchanged character of East German economic reforms, which are consistently of state-parametric type. The unchanged liberalism of the Kadar regime is probably responsible for the consistent progress of Hungarian economic reforms of guided-market type. On the contrary, initially slow and recently (from March 1968) rapid de-liberalisation of Gomulka's Poland, was accompanied by a slowing-down and then a complete change of economic reforms' objectives.

From the viewpoint of studying the evolution of economic reforms objectives, Poland is especially interesting because : a) its long history of economic reforms (over 12 years already), b) marked changes in its political milieu during that time - from the most liberal in Eastern Europe to one of the most conservative today. The Polish experience seems to indicate that the economic necessity of making the system more efficient is so great that an effective halt of reforms is not possible for any prolonged period. E.g. the Polish Communist Party had to resume economic reforms in 1965-66 after about 5 years of standing practically still, except for marginal and half-hearted tinkering with isolated parts of managerial mechanism. As long, however, as the problem of relative effectiveness of market-parametric versus state-parametric model is not unequivocally resolved - for which longer historical experience is needed - there is always a possibility of switching reforms' movement from economic decentralisation towards improvement of centralised planning, and this is what the Polish Party has done in its new reforms' effort. If it will also become the future of Czechoslovak reforms, the hypothesis of intimate relation between political liberalisation and type of economic reforms chosen, will be considered strengthened. The need for higher economic efficiency is, however, so great nowadays in Eastern Europe that economic reforms per se are not any longer the sign of liberal tendencies of the country which embarks on their implementation.

I also wonder if the key to understanding the recent political events in Poland does not lie in the fact that Poland is the first country in Eastern Europe which already suffers disillusion from reforms failure, when all the other countries still hope that substantial improvements are within reach, after a few years of reforming. This hope no longer exist in Poland. It is interesting to notice that the faith in the economic potential of central planning - in which many believed in early '50 s. - has never been re-established in Poland, which in itself is quite a proof of failure of our 12-years tinkering with economic reforms. Director of prestigious Institute of Philosophy and Sociology of Polish Academy of Sciences, Professor J. Szczepanski, reflected general feelings (and economic reality) when he stated at a recent (1966) symposium on socialist enterprise : "... the prognoses that

socialist bureaucracy will lead to speedy achievement of material well-being did not materialise" (1, p. 573). The ideological attack launched during March-October 1968 against so called "little stabilisation" and its results, was obviously a product of disillusionment with results achieved thus far by economic reforms - a disillusion universally shared. Its critical accents appealed to many. The true nature of the "ideology" behind this attack was best revealed, however, in what was being advocated in place of "little stabilisation": it advocated going backward rather than forward. The attacks were being carried against half-measures of Polish economic reforms, but not for the sake of introducing more radical changes, but for the sake of abandoning them completely. Repeated attempts were being made to ridicule "socialism based on profit motive" and reforms have been accused of "propagating the bourgeois way of life". Some authors went so far as to claim that the very goals of efficiency and achieving a high standard of living should be abandoned if they require introducing profit motive and substituting market mechanism and/or "power of technocrats" for direct Party control over economic life of the country (4). These extremist views have not been supported by Vth Congress of Polish Communist Party meeting in Warsaw in November, 1968, but are nevertheless instructive as an indication of anti-reforms currents among important segments of Polish communist party apparatus. There are numerous indications that similar sentiments are also present in other Eastern European Communist parties. If reforms efforts, which are now under way in Eastern European countries, fail - it may be all that these segments of Communist parties need to challenge the very promises of economic reforms. Czechoslovakia is the country in which anti-reforms views already come to light on substantial scale with far reaching consequences.

References

1. Przedsiębiorstwo w polskim systemie społeczno-ekonomicznym (Enterprise in Polish Socio-Economic System), Warsaw, 1967.
2. WAKAR, A., ZIELINSKI, J.G., Socialist Operational Price System, American Economic Review, March 1963.
3. ZIELINSKI, J.G., On the Theory of Socialist Planning, Oxford University Press, Ibadan-London, 1968.
4. On the Theory of Success Indicators, Economics of Planning, n°1, 1967.
5. On the Theory of Economic Reforms and their Optimal Sequence, Economics of Planning, n° 3, 1968.
6. Entreprise socialiste et mécanismes de gestion industrielle, in Cahiers de l'I.S.E.A., tome 4, n° 1, janvier 1970.

- (1) Interrelationships between prices and success indicators are analysed in /2. The concept of management formula as a component part of management mechanism is discussed in/3, p. 147-170 and in/6, p. 185-226. Extensive discussion of success indicators can be found in/4.

- (2) By decentralisation we mean wider use of economic parameters - irrespective of how they are determined, by the Central Planning Board or by the market - at the expense of administrative orders. See 3, p. 102-115.
- (3) It is characteristic that the slow-down of economic reforms in Czechoslovakia after the Russian invasion was accompanied by official appeals to stop the further spread of workers councils and efforts to diminish their influence. As of May of 1970, workers councils in Czechoslovakia have not yet obtained a legal basis for their existence.
- (4) Especially vocal proponents of these sentiments are philosopher Dr. W. Myslek and economist Dr. S. Lysko, who published extensively between March and July 1968. After Vth Congress of PUWP they are, fortunately, relatively silent.

8. How to Evaluate the Effectiveness of Economic Reforms ?

a) Quantitative Evidence.

In recent years quantitative studies of efficiency of "economic working arrangements" have made substantial progress both in refining their methodology and in producing the relevant statistical data (1). These studies were concerned with national and international comparisons of both static and dynamic efficiency.

Studies of static efficiency produced comparative data of real national income per employed worker and of real national income per unit of composite of labour and capital, taking into account the differences in the supply of capital available to cooperate with the labour (1, p. 23). They also stressed that the efficiency of economic working arrangements is closely related to, but not the same thing as, productivity (1, p. 25). Trying to isolate the impact of economic working arrangements on efficiency from other factors, the efforts have been made to adjust the labour and the labour cum capital productivity figures, by taking into account the differences in (1, p. 25-30):

- the quality of labour, especially of varying levels of education and of different shares of female workers in total employment;
- supplies of mineral resources and of usable agricultural land;
- market size;
- available technological knowledge, and
- quality of output structure.

The list, I think, should be extended by taking into account at least two additional factors. First of all, the technological quality (use value) of output produced by discounting output figures of selected commodities by the length of their useful life (number of miles which average tyre can withstand, average number of light hours which electric bulb can deliver, etc.). Secondly, the impact of output structure on productivity level. There is no reason to assume that this cancels out either in comparisons between countries and/or overtime within one country and, obviously, may have a very substantial impact on productivity figures. It would be a serious mistake to attribute resulting productivity changes to economic working arrangements. This problem is particularly serious in relation to planned economies, where profound structural changes are frequently undertaken on a scale rarely rivalled by market economies under peaceful condition. E.g. compare substantial increase of investments share going to branches with high capital-output ratios, such as agriculture, mining, housing and others which has taken place in recent years in the Soviet Union and some other socialist countries, for example Poland.

Needless to say, the practical possibility of taking these different factors into account in a statistically satisfactory, or even, acceptable manner, differs greatly, but nevertheless the overall findings are illuminating and further refinements will, undoubtedly, be forthcoming.

The same approach has been applied to problems of dynamic efficiency and average annual rate of growth of real national income per employed worker and per unit of factor inputs (labour and reproducible capital) have been calculated for different countries and different post-1950 periods (1, p. 52-73).

As far as I know, such studies have been thus far carried out for different Western countries and the Soviet Union only. It seems to me that they could be very profitably extended to the study of the comparative efficiency of economic working arrangements between different Soviet-block countries and also used for studying the effectiveness of economic reforms within individual East European countries. I am not aware of any such study having been published (2) and this field of research is waiting to be undertaken by a statistically inclined, imaginative researcher.

At the same time it seems to me that studies on effectiveness of economic reforms could be profitably extended into two directions :

In the quantitative sphere, from considerations of overall efficiency only, into some key problems of less aggregative nature, where nevertheless some relevant statistical information is available and can be further improved by proper recalculations, where necessary. The quality of planners' control of key economic variables and of plans' consistency seems especially worth while to single out for such investigation. For example the available Polish data presented in Tables 4-7 indicate that planners' control over the relative share between sector I and II, level of employment, wage fund, real wages or stock is extremely inadequate, and, where comparable data have been available, hardly shows any improvement over the pre-reform period. The same may be said about short-term predictions : predicting the plan performance three to four months beforehand, necessary for preparing the next year's planning guidelines. These predictions also show a surprisingly high level of error (Table 8).

The persisting inability of Planners to achieve balance equilibrium of the economy is witnessed not only by constant partial shortages in the consumer goods market, but also by a very high stock/output growth ratio (Table 9) and an equally high divergence between planned/fulfilment stock level (Table 7). Needless to say, the latter ratio, as all plan/fulfilments ratios, does not measure performance alone, but rather in relation to planners' knowledge or ability to predict. When discussing problems of balance equilibrium it is also instructive to notice that the number of centrally rationed inputs in Poland, after a very drastic drop at the beginning of reforms (from 1575 in 1955 to 405 in 1958) and then a slow decreasing trend till 1960 (325), picked up again, and in 1965 was already 463. (Tables 10 and 11). The number of centrally allocated inputs does indicate - however imperfectly - the degree of disequilibrium and it grew with the stepping up of the rate of growth in the 1960-65 plan.

b) Behavioural Evidence.

In addition to quantitative analysis, the effectiveness of economic reforms should also be investigated using the behavioural evidence at CPB and enterprise level.

Behavioural evidence at the CPB level falls into three basic groups (Polish data are used throughout for illustration) :

Constant Changes in Management Mechanism. They are the best proof that the Central Planning Board considers reforms' measures - some instituted quite recently - as unsatisfactory, unable to do the job. The "turnover" of reforms measures in Poland is unbelievably high. For example, as a result of the IV Plenum of Central Committee of PUWP in July 1965, from January 1st, 1966 and partly from January 1st, 1967 a broad wave of changes have been instituted. Less than three years later, the Vth Congress of PUWP (November 1969) found it necessary to announce the need of changing many of these new measures, including success indicators (last reformed in 1967), principles of ex-factory prices (1967), system of investment financing (1966), etc. Examination of the number of changes in basic elements of management mechanism during the reform period, i.e. from 1956 on, reveals that hardly any lasted more than three years without basic change, and two years without substantial modification. E.g. the basic managerial bonus system has undergone fundamental changes in 1957, 1960 and 1964 plus two modifications in 1961 and 1966, altogether 5 changes over 10 years. The same is true about success indicators, principles of factory fund, etc. Needless to say, these constant changes in management mechanism have - for obvious reasons - very negative effects on economic efficiency. They also indicate that either the changes in management mechanism are introduced without sufficient preparation and analysis of the problems involved and/or that there is a deeper cause, which make these constant changes necessary. As we will see in Section 9, the latter is especially the case.

Central Planning Board's Inability to Implement Its own Decisions. Another interesting indicator of the deficiency of reforms, is the inability of the Central Planning Board to implement the reform measures it wants. We have the situation that certain changes are enacted, made into law, etc., but are in fact not implemented. There are many examples of this phenomenon in Polish reform practice. The most glaring are even publicly admitted by the Central Planning Board or its spokesmen. E. g. in thesis of II-Plenum of Central Committee of PUWP (April 1969) we read, among others : "Between IVth and Vth Congress, our Party devoted much attention to improving investment activities. These problems were extensively discussed at the IV Plenary Meeting of Central Committee in 1965 and the VI Plenum was exclusively devoted to ways and methods of improving investment activity. The Resolution of the VI Plenary Meeting of the Central Committee - in spite of the fact that three years have already elapsed - has not been implemented in many essential points" (6). Then follow the list of all standard deficiencies of investment activities (too broad investment front, construction periods much longer than planned, investment costs much higher than estimated, investment started without proper preparation, total investment higher than investment capacities, etc., etc.). It is

interesting to notice that all these complaints have been already voiced in 1956-57 during critical examination of 6-year Plan experience (e.g. in 4, passim and p. 104). Another glaring example of the Central Planning Board's inability to implement its own decisions is reform of industrial associations. First reformed in 1958, they have been reformed again in 1965. Characteristically enough, in one of the Polish book's on industrial management, the analysis of the 1965 reform of industrial associations is sub-titled : "Unfulfilled promises of 1958 reform" (2, p. 211). This is an official view also : "This properly conceived reform (of industrial associations) has not been, however, implemented" (5, p. 22) (3).

Central Planning Board's Voiced Dissatisfaction is another behavioural proof of reforms' ineffectiveness. This abounds in Poland where strong dissatisfaction with the working of the basic elements of the system (usually accompanied by exhortations to work better and harder) is being frequently voiced by the highest representatives of Party and Government.

Behavioural evidence at the enterprise level falls into two basic categories :

Enterprise Behaviour at the Stage of Plan Construction. As can be seen from the voluminous literature, the changes introduced so far in Polish management mechanism did not succeed in eliminating information distortions by lower levels of industrial hierarchy, from enterprises to economic Ministries, inclusive. As a result, there remain also the basic features of the traditional planning system : - bargaining procedures between subsequent levels of industrial administration concerning the level of planning task (the plan executants trying to obtain low-output, high input plan), and arbitrary corrections of lower level proposals by higher authorities which are one of the most important reasons for internal inconsistencies in East European plans at all levels.

Enterprise Behaviour at the Stage of Plan Fulfilment. The existing management mechanism still induces certain general types of economic behaviour in different spheres of its activity, e.g. in shaping time pattern of output flow, assortment policy, attitude towards risk and innovation, etc., which are undesirable from the national economy viewpoint. The existing management mechanism also determines the ways of coping with short-run problems, such as underfulfilment of quarterly output quota, exceeding the wage fund limit, or not meeting the cost reduction target, which in most cases lead to decidedly uneconomic behaviour. Limiting our discussion to general types of enterprise behaviour only, it has been found that :

- enterprises are vitally interested in unequal distribution of output flow, with as heavy concentration of output in the IV quarter of the year as possible. It has been also discovered that existing management mechanism induces timing of many enterprise decisions, e.g. when it is advantageous to start producing new products or cease producing the old one, which is contrary to the interest of national economy;
- enterprises product-mix policy is used as the easiest way of meeting value plan indices and is responsible - to a great extent - for constant partial disequilibria in many markets and excessive sub-contractions, which cannot be economically justified;

- enterprises have not only very low propensity to innovate and to risk-taking but are even positively hostile to them. As a result the rate of technical progress in production methods and in introducing new products and designs is very slow, with obvious detrimental effects on national economy, and especially on international competitiveness and export effectiveness of Polish products.

References.

1. BERGSON, A., Planning and Productivity under Soviet Socialism, Carnegie-Mellon University, New York-London, 1968.
2. GLINSKI, B., Teorie i praktyka zarządzania przedsiębiorstwami przemysłowymi (Theories and Practice of Management of Industrial Enterprises), Warsaw, 1966.
3. GOLDMANN, J., FLEK, J., Economic Growth in Czechoslovakia, Economics of Planning, n° 2, 1966.
4. KARPINSKI, A., Zagadnienia socjalistycznej industrializacji Polski (Problems of Socialist Industrialization of Poland), Warsaw, 1958.
5. PAJESTKA, J., SECOMSKI, K.: Doskonalenie planowania i funkcjonowania gospodarki w Polsce Ludowej (Improvements of Planning and Functioning of the Economy in People's Poland), Warsaw, 1968.
6. II Plenum of Central Committee of Polish United Workers Party, April 1969, Nowe Drogi, n° 5, 1969.

- (1) See (1, passim) and literature quoted therein.
- (2) Except (3), but it tries to use Kalecki's growth model to measure the impact of traditional system of planning and management on economic performance of Czechoslovakia.
- (3) Prof. Pajestka was Director of Planning Institute of Polish Planning Commission and Prof. Secomski was Commission's vice-Chairman in charge of investment policies. Recently Dr. Pajestka has been promoted to Vice-Chairmanship of the Commission but Dr. Secomski left the Commission completely.

9. The Basic Inconsistencies of Present Economic Reforms in East Europe.

The basic characteristic feature of the present economic reforms in East Europe - except Hungarian reforms and Czechoslovak reforms' proposals - is their eclectic character. This will be illustrated by examining Polish reforms, but a similar picture could be easily obtained by analysing Soviet Union or Bulgarian reforms.

The eclectic character of reforms undertaken leads to numerous contradictions in basic reforms' objectives and in reforms' measures which are being introduced into management mechanism. Some Polish economists (11, p. 5-17) try to present this eclectic character of Polish reforms as their virtue and as a proof of our pragmatic approach. I hope that they do it in their official rather than professional capacity, because there is abundant evidence that these assertions are profoundly mistaken.

Five basic groups of irreconcilable assumptions are mainly responsible for failure of Polish economic reforms, and they are discussed briefly below :

a) Simultaneous Use of Administrative Orders and Economic Parameters.

Polish (and Russian, G.D.R. and Bulgarian) reforms try to establish an economic model essentially controlled by administrative orders but "combined with wider use of economic instruments". These efforts, do not take into account that a) administrative orders inevitably clash with economic parameters, b) that to protect the initial set of administrative orders, the new set of administrative orders have to be issued and so on, until the point is reached where economic parameters are - in the main - neutralized or, more precisely, reduced to the role of residual force, which keeps pushing plan executants off the course determined by administrative orders, but do not ascertain it, except in minor matters.

Experience of Polish economic reforms, proves the above reasoning beyond any doubt. Firstly, from 1956 on, we witnessed the number of efforts to broaden the use of economic parameters (but within the framework of the model essentially controlled by administrative orders) which proved futile. Twelve years after Polish economic reforms started, the Vth Congress of PUWP (November 1968) pronounces (probably for the hundredth time during that period) "Rejecting the revisionist theories... we strive to strengthen the role of the central planning... and, at the same time, to equip it to a greater extent with economic tools and economic incentives, at the expense of the number of administrative planned directives" (14, p. 16). Again, however, there is no analysis why previous numerous similar efforts failed, and hence, there is no reason to expect better results than before.

Secondly, just when intentions to diminish the number of administrative orders have been repeatedly voiced by the Central Planning Board, the actual number of administrative orders reached again "astronomical" figure. A recent Polish study revealed, even under narrow definition of administrative orders (only such plan indices are considered as administrative orders which

are combined with financial penalties) "... the real number of administrative directives in the enterprise studied is about 80 ... this figure does not include financial norms and wage funds norms, which should be added and would make this figure even higher. All other indices (in fact - J.G.Z.) informational... These data are the best proof that in actual planning practice some scores of administrative orders rather than a dozen or so are used. Instead of postulated decline, there was a rapid increase of administrative orders" (4, p. 31) (1).

b) Preservation of Basic Features of Traditional Economic System with Changes in Enterprise Behaviour.

Polish economic reforms retain basic principles of traditional system - yearly planning targets and ratchet principle (their application imply that heterogeneous information carriers are used) - but at the same time want to change economic behaviour. This is, however, impossible. (For this very reason we called these principles the basic determinants of economic behaviour). As we shall try to prove below, the uneconomic enterprise behaviour - already indicated (in Section 5, a)) in Section 8 b) above - is basically the product of these principles, with a few other elements of existing management mechanism also playing their part.

Behaviour of socialist enterprise managers conforms by and large to basic assumptions of economy theory. Socialist managers are essentially bonus maximisers and their behaviour can be explained - to the degree comparable to a profit maximising assumption of market economy - in terms of this goal. If their behaviour is frequently "strange" by market economy standards, it is due exclusively to the fact that they are operating within "strange" economic and legal environments. But as we will try to prove below, this behaviour is, however, perfectly rational - and in most cases is a result of quite sophisticated economic calculation - under economic and legal conditions prevailing presently in most Eastern European countries.

1. Enterprise Tactics at the Stage of Plan Formulation.

The socialist enterprise behaviour at the stage of plan building is mainly influenced by the principle of yearly plan targets coupled with the so-called "ratchet principle".

Under the system of yearly plan tasks the first and basic condition of successful plan fulfilment is to get as low - in relation to enterprise resources - to plan targets as possible. This can be best achieved by not revealing enterprise true production possibilities, or in Eastern European parlance, by "hiding reserves". As one Polish expert on managerial economics aptly noticed, supplying one-sided information is the most effective method of influencing administrative orders, which socialist enterprise has at its disposal (10, p. 157). It is hardly astonishing that it uses it rather unsparingly.

Information flow in the planning process is a two-way flow : background informations and proposals flow up - through appropriate administrative levels - from enterprises to the Central Planning Board when plan orders flow down through the same channels from Central Planning Board to enterprises. It is worthwhile to notice that we encounter here a feedback interaction between these information flows :

- 1) enterprises supply distorted information;
- 2) higher authorities react by correcting them as unreliable, but not having detailed knowledge about enterprises real possibilities, frequently produce;
- 3) unrealistic and/or internally inconsistent plan directives;
- 4) enterprises intensify information distortion as a matter of self-defence.

Needless to say, Eastern European planners became aware of these information distortions, at the very early stages in the history of economic planning. Nevertheless, thus far, no effective remedy has been found. Two methods of tackling this problem have been tried :

- better control over data supplied by enterprises, especially by development of all kinds of technologically or statistically determined standards. This method has its obvious limitations, however. First of all, the higher authorities encounter the knowledge barrier - it is impossible to check effectively on enterprises when the ratio of white collar workers in enterprises to those in industrial association is in the range of a few dozen to one, and in enterprise economic ministries in the range of a few hundred to one. Secondly, as the causes for information distortion apply also to levels above enterprises (after all, also industrial associations and economic ministries want to fulfil their plan targets), really effective control is not possible;
- development of incentive system for optimal planning at all levels of industrial administration, from enterprise up. (By optimal planning we understand here simply the reserves are kept at the level technically necessary). These have been tried over a number of years in most socialist countries in two basic forms (or their combination) : incentives for plan overfulfilment and incentives for revealing reserves at the stage of plan construction. As we have discussed elsewhere (16) they failed because there are no effective incentive systems compatible with yearly planning tasks and ratchet principles.

Enterprises behaviour at the stage of plan construction is also influenced by particular solutions used in existing management mechanism, especially by success indicator used. Depending on the type of success indicator, different input and output structure will create particularly favourable conditions for future easy plan fulfilment. E.g. with gross output success indicator it is advantageous to plan cheaper input than the one enterprise actually intends to use in the process of plan fulfilment, because turning later on to more expensive raw materials facilitates meeting gross output plan target. The wage fund limit makes it advantageous to plan more labour intensive processes than actually intended, so as to have extra reserves of wage fund for meeting unforeseen emergencies etc. etc.

2. Enterprise Tactics at the Stage of Plan Fulfilment.

The socialist enterprise tactics at the stage of plan fulfilment is a broad and fascinating subject in what could be called "economic pathology". Because of limited scope of our enquiry no more than its basic outline can be attempted here.

A. Shaping the Time Pattern of Output Flow to Enterprise.

Advantage.

The optimal time pattern of output flow (always from enterprise viewpoint) is governed by ratchet principle, practice of plan revisions during the year, and principles of the bonus system. These three factors make the enterprise vitally interested in unequal distribution of output flow, with as heavy concentration of output in the IV quarter of the year as possible. There are at least three advantages in planning the output flow in such a manner :

1) Because the bonuses are paid monthly in accordance with monthly plan fulfilment data, and what is actually paid out cannot be revoked according to existing regulations, such time pattern of output makes doubly sure that bonuses will be paid for maximum number of months, even if the yearly plan target is not met.

2) If, in spite of enterprise efforts to the contrary, its plan will be nevertheless increased by industrial association during the planning year, it has ample reserves to meet it, or - depending on the situation - it can help its industrial association by agreeing to take an extra burden above its original planning tasks, for extra bonus, of course (paid out of the industrial association's reserve bonus fund). In both cases it helps to plan well below capacity for most of the year.

3) Because the next year plan is based on the first 7-9 months performance plus "probable fulfilment" estimation (guessing in fact), to have relatively low output figure for these months is very helpful in arguing with industrial association that this year's plan target is the maximum of what the enterprise can possibly produce, if not more. Industrial associations will not believe it, of course, but can never be sure to what extent it is not true. This uncertainty has frequently a beneficial effect on enterprise's next year plan targets.

A good enterprise manager knows that in many cases, most of them much more subtle than the one described above, the "proper" timing of decisions is essential to success. For example it is advantageous to start producing new products in the second half of the year. The first phase of producing new output is, as a rule, characterised by high unit cost. To have this high cost phase of output neatly concentrated in one year (by starting it appropriately late in the year) nicely inflates average yearly costs of production, discourages industrial associations from asking for too big cost reductions next year, and in addition creates automatic cost reduction reserves, because, with growing experience in producing new output, its production costs are bound to fall.

B. Enterprise Product - Mix Policy.

The discrepancy between structure of supply and structure of demand is a permanent, and one of the most serious, worry of Eastern European countries. It shows itself in many ways from constant partial disequilibrium on many markets, to high level of stock increase to output growth, much higher than in market economies.

The causes of this discrepancy are only partly due to planning mistakes. To a great extent they are the result of enterprise product-mix policy in violation, open or disguised, of the plan. Product-mix is an enterprise's most potent method of meeting what can be called qualitative plan indices (value of output, productivity per worker, profitability, etc.), and one of very few areas left where it still has room for manoeuvre, if not always de jure, as it sometimes require violating the so-called assortment plan, then at least in fact.

The whole problem of product-mix policy arises because two types of plan directives are simultaneously used : one concerning the structure of input and output, the other requiring the achievement of a certain number of qualitative indices. The trouble is that the former - as a rule - do not conform to the easiest way of achieving the latter. At the same time the existing management mechanism of socialist countries provides its enterprises with both incentives, and plenty of opportunities to choose the easiest way of meeting qualitative plan targets.

First of all, these opportunities are provided by an existing price system, which is characterised by very large differences in profitability per unit of wage fund (usually the most limiting factor) of different products or stages of production. Here are some illuminating data from one Polish textile factory :

- 1 zl. of wage fund in cotton mill produces from 0,4 zl. of losses to 3 zl. of profit depending on type of yarn produced;
- 1 zl. of wage fund in weaving mill can yield from - 1,0 zl. to + 0,9 zl.;
- 1 zl. of wage fund in finishing shop may lead to anything from 7 zlotys of losses to 42 szbtys of profit (1, p. 422).

Under such conditions a relatively small product-mix manoeuvre towards more profitable and less labour-intensive products immediately improves most of qualitative plan targets : profitability, productivity and volume of output.

Subcontracting provides another easy way of meeting or improving plan targets. Gross output in most socialist countries is being calculated according to the so-called "factory method", which disregards intra-enterprise flows of, say, semi-finished products. By subcontracting, enterprise can, as a rule, increase its total production capacity, by switching workers and machines towards further phases of output and, hence, improving its formal performance as measured by plan indices.

C. Attitude Towards Risk and Innovation.

There is now abundant evidence that socialist enterprises have very low propensity to innovate, that they try to avoid risk as much as possible. The reasons for this are twofold ; first of all there is the bureaucratic model of the socialist manager. The socialist manager knows from experience that he is practically never blamed for not doing something that was not explicitly required from him and innovation cannot - because of its very nature - be explicitly required, except in non-operational terms. On the other hand, he also knows from bitter experience, that for taking risky action, which turns sour, he can be made responsible and punished. Secondly, if he succeeds in his risky venture - his material and moral rewards will be very modest relatively to the risk incurred. Restated in economic terms - disincentives to innovate are strong, incentives - weak. Result may be only one - insufficient rate of technical progress, which is a constant complaint of Eastern European planners.

But cannot socialist economy assure strong material incentives for its enterprises ? It cannot as long as it is based on yearly planning and ratchet principles. These principles reduce the enterprise's time horizon to one year and make it indifferent to long-term gains, because these will be appropriated by the State in the form of higher planning tasks. Without making the enterprise interested in future gains, it is impossible to make them interested in research and development activities.

Finally, existing management mechanism makes socialist enterprise not only indifferent to technical progress, but positively hostile to it. This is due to the fact that the present construction of management mechanism frequently requires enterprises to suffer short-term losses for the sake of future gains for the State. The list of disincentives to research and development is a long one, so let us list only the more important ones:

1) Research and development frequently leads to a temporary drop of current production, higher average costs, lower profitability. All these affects negatively the basic yearly plan indices (profitability, volume of output, productivity) on which managerial bonuses directly depend.

2) One of the basic obstacles to research and development is the wage fund limit. The enterprise management is reluctant to divert precious wage funds from bonus yielding current production to research and development from which the State will mainly benefit. Even if given free, new and excellent design, enterprise is - as a rule - not interested in its production. Before it masters this new product its labour intensity per unit of output will be necessarily high, when its rationed wage fund will still remain dependant on the planned ratio of output to wages.

Needless to say, central planners were quick to undertake a number of corrective measures. First of all, they made research and development part of enterprise yearly plan. Secondly, products are now an important part of enterprise assortment plans, on whose fulfilment part of the management bonuses depends. Thirdly, they created special funds at all level of industrial hierarchy, from enterprise up, from which research and development is to be financed. These special funds - set apart from enterprise working capital and its profit-less statement - are to be used for financing especially risky and/

or long term research and development projects. Finally, some countries (e.g. Poland) started to experiment with special, separate wage funds for technical progress, allocated to enterprise in addition to wage fund for current production and independent from current production results.

All these obviously helped to weaken enterprise unwillingness to engage in research and development and to introduce new products into their production schedules but, at the same time, must be considered as half-measures only, many of them creating their own problems. E.g. as the above measures did not change the basic enterprise preference for current output how to assure that wage funds earmarked for research and development will not be used for current production purposes? Quite a tricky problem, if one remembers that at the enterprise level, the same people are frequently engaged both in current production and in research and development.

c) Simultaneous Use of Yearly Planning Targets and Long-Term Financial Norms.

The next inconsistency of most East European economic reforms are efforts to combine yearly planning with long-term financial norms. The advantages of introducing stable financial norms have long been recognised by Eastern European economists and planners. By extending enterprise time horizon they were to create the basis for policy decisions going beyond short-term manoeuvres to which, under yearly fixed financial norms, the enterprise is forced to limit itself. Moreover, stability of financial obligation is a necessary precondition for effective functioning of economic incentives based on profit or profitability success indicators (2) and for broadening enterprise scope of decisions, including a certain measure of self-financing, which is also being allocated [13]. Because of these advantages, the long-term financial norms were always high on the list of reform measures.

The last effort to introduce a minimum of financial stability to Polish enterprises was attempted in 1966 when the principle of fixing financial norms for two years was introduced [15]. It proved, however, abortive, as all the numerous previous attempts. In practice, most financial norms not only do not remain unchanged for two years, but are in fact changed a few times a year, and this practice is almost universal throughout Polish industry.

Let us take, for example, the obligatory index of profitability. The findings of a special commission for studying the functioning of the financial system of Polish industrial enterprises, created in January 1968 by the Central Committee of PUWP, revealed that in 1967 in all enterprises of industrial association of Iron and Steel, the planned profitability was changed 1 to 4 times, averaging 2.6 changes per enterprise per year and in 60 % of all enterprises, the last change was introduced on December 20, 1967 (5). The industrial association quoted was, certainly, no exception. The same study found out that in 1967 the obligatory index of profitability was changed in 100 % of metallurgical plants studied, in 98 % of light industry enterprises, in 95 % of machine building and chemical enterprises and in 61 % of enterprises of the food industry. Another key financial norm - the share of profit going to enterprise development fund - was changed during the same year in 80-100 % of enterprises, depending on industrial associations studied (6).

The reason why all efforts to introduce long-term financial norms proved unsuccessful lies in the fact that they cannot be combined with the practice of yearly planning targets. Because the reliability of planning tasks is very low (e.g. it has been found out that only 15-40 % of products planned are in fact produced by Polish cotton factories (7, p. 331) and this applies not only to product-mix target but also to material supplies, investment completion dates, etc., the necessary changes and/or departures from plan target, causes great fluctuations in enterprises financial results. It turned out, e.g. that in 1967 out of 533 enterprises representing 25 industrial associations, only 18 % fulfilled their profit target in 95-110 % range. 284 enterprises were in 50-95 % range and the rest in minus 50 % to plus 600 % range (5). Needless to say, under such circumstances, long-term financial norms are impossible. For the sake of stabilising enterprises financial position and safeguarding the functioning of economic incentives, the variable financial norms must be used as a "shock absorber" of planning changes.

Here we came across another serious drawback of yearly planning tasks. As experience of all socialist countries shows, frequent changes in planning targets are inherent in administrative planning. The consequences of frequent changes of planning tasks are, however, most serious.

First of all, they completely undermine the functioning of incentive systems connected with the profitability index and with existence of development fund dependent on volume of profit achieved. If probability target or share of profit going to development fund are adjusted according to actual performance and subject to bargaining at any time, then the link between profit maximization and managerial bonuses maximization - the latter constituting the real goal of socialist enterprise - is being broken, and profit maximization sensu stricto substituted by bargaining behaviour aiming at favorable plan changes. Secondly, the time horizon of enterprise's decisions is further artificially shortened. Instead of being of yearly duration - which is already much too short - enterprise time horizon shrinks to the few months actually elapsing between plan revisions. Thirdly, it introduces an element of institutional uncertainty, as enterprise's management realises that at any moment their losses or achievements (3) may be nullified or rectified by decisions of higher authorities. It hardly needs stressing that this uncertainty is not conducive to economic behaviour. Fourthly, frequent plan changes destroy not only incentives for improving the quality of the plan - they are not worth to strive for if plan is subject to such frequent changes - but undermine the very belief that planning itself is a useful exercise. This conviction is strengthened by the fact that most plan changes introduced during the year are not followed by proper adjustment in co-related plan indices. These adjustments would require in practice a reworking of the whole technico-economic plan during the year, which, for practical reasons, is not usually possible (4).

d) Simultaneous Decentralisation at Enterprise and Branch Level.

The fourth basic inconsistency of Polish economic reforms are attempts to decentralise simultaneously at industrial association or branch level and at enterprise level.

The role of industrial associations in planning - especially operative - and management depend on their functions within industrial hierarchy and the scope of their authority over member-enterprises. Taking these as a criterion the following basic types of industrial associations may be distinguished :

1) Industrial association as a government office. Under this model, industrial associations are in fact part of Central Planning Board and their functions are mainly administrative : to control and supervise the subordinate enterprises in their process of plan fulfilment. The rationale of their existence is easily explained by phenomenon of limited span-of-management. Industrial associations have been created to help economic Ministries to supervise their respective branches of the economy and originally were even part of these Ministries as so-called "branch departments" or "branch central offices".

2) Industrial association as a business corporation. Under this model, industrial association becomes the basic unit of plan-carrying apparatus. The industrial association becomes the enterprise; former enterprises are now divisions or firms. Under this structure, the Central Planning Board should, practically speaking, deal with industrial associations only, and industrial associations should be left free to decide how to organize their internal structure. According to circumstances, some of them could choose a General Motors-type decentralized structure or a Republic Steel centralized type of organization. Under a corporation model, all plan targets - if any - should be fixed for industrial associations only, which should be fully and solely responsible for meeting them. All instruments and measures of government economic policy should be directed also exclusively at industrial associations.

3) Industrial association as an association of independent enterprises. Under this model, industrial associations are organizations created by independent enterprises as their service organizations for such purposes as : production and technological research, designing, short and long-term market research, advertising and the like. Organizational and functional details of this type of association may be very different indeed, but its basic common feature must be complete lack of administrative power over member-enterprises, irrespective if membership is voluntary or compulsory.

In these Eastern European countries which opted for state-parametric model, actually existing industrial associations are a mixture of our models 1 and 2. The first stage of economic reforms in all East Europe was characterized by efforts to decentralize simultaneously both at enterprises and branch level. As a result a present "dual character" of industrial associations emerged. On the one hand they ceased to be pure government offices and become "economic organizations" based on "economic accountability" principle, rewarded according to performance of subordinate enterprises, etc. On the other hand they did not become industrial corporations sensu stricto, at least formally, because of the belief that separate enterprises - rather than industrial associations should remain "the basic form of economic organization of socialist industry".

This "dual nature" of industrial associations is clearly perceived by Eastern European economists and lawyers (3, p. 487, 7, p. 375, 2, p. 160-161, 18, p. 41-42), many of whom support it both as inevitable, workable and advantageous. Inevitable, because "... economic calculation of individual enterprises within the framework of market mechanism cannot solve sufficiently correctly the basic economic problem of rational social division of labour and resource allocation". Workable, because "existence of industrial associations and entrusting them with certain functions in the sphere of industrial management can be reconciled, it seems, with preserving the significant role and responsibility of the enterprises". Advantageous, because industrial associations can assure "... rational division of labour (mainly determination of direction of specialization) and (rational/allocation of resources (mainly investments) between their subordinate enterprises" (11, p. 43, 44 and 45).

These - one suspects - officially optimistic views are not shared universally, however. Many Polish economists - including the present author - indicate inherent difficulties of maintaining à la longue the dual role of industrial associations. It is impossible to decentralize effectively both at industrial association and enterprise level. According to official pronouncements, the industrial associations' scope of authority should be broadened at the expense of economic Ministries with simultaneous broadening of the enterprise freedom of action. The experience of Eastern European countries indicates, however, that expending economic functions of industrial association inevitably leads to diminishing enterprise independence.

It is author's opinion that only "pure" corporation or individual enterprise models represent internally consistent solutions. All efforts to stop halfway these two models represent "unstable equilibrium", with a pronounced tendency to move towards corporation model managed internally by administrative means (5). This is due to the fact that what industrial associations lack as a full-blooded corporations, they try to overcome relying on their prerogative as government offices, having the right to issue administrative orders to their subordinate member-enterprises. The above mentioned tendency is pronounced not only in Poland, but also in all other socialist countries which try to maintain similar dualistic economic structure, e.g. in G.D.R. or Bulgaria.

References.

1. BOROCHOWSKI, W., Planning and Control of Wage fund in Multidivisional Textile Factory p. 439-451.
2. BUCZKOWSKI, S., Enterprise Legal Relations with other Units of Socialized Economy p. 160-161.
3. GLINSKI, B., Teorie i praktyka zarządzania przedsiębiorstwami przemysłowymi (Theories and Practice of Management of Industrial Enterprises), Warsaw, 1966.
4. GOLINOWKI, K., Directive indices in Enterprise Management, Gospodarka Planowa, n° 3, 1969, p. 23-31.

5. KIERCZYNSKI, T., Functioning of Profitability Index, *Zycie Gospodarcze*, n° 42, 1968.
6. KIERCZYNSKI, T., Functioning of the System of Financing and Crediting the Stocks, *Zycie Gospodarcze*, n° 43, 1968.
7. WOJCIECHOWSKA, U., *Finanse przedsiębiorstw socjalistycznych (Finances of Socialist Enterprises)*, Warsaw, 1967.
8. LESKIEWICZ, Z., *Zjednoczenie - organizacja branżowa przemysłu socjalistycznego (Association - Branch Organization of Socialist Industry)*, Warsaw, 1961.
9. MISIAK, M. (ed.), *Bodźce ekonomiczne w przedsiębiorstwie przemysłowym (Economic Incentives in Industrial Enterprise)*, Warsaw, 1963.
10. MISIAK, M. (ed.), *Interrelationship of Directives and Incentives in Management of Industrial Enterprise*, in/9, p. 135-168.
11. PAJESTKA, J.; SECOMSKI, K., *Doskonalenie planowania i funkcjonowania gospodarki w Polsce Ludowej (Improvements of Planning and Functioning of the Economy in People's Poland)*, Warsaw, 1968.
12. *Przedsiębiorstwo w polskim systemie społeczno-ekonomicznym (Enterprise in Polish Socio-Economic System)*, Warsaw, 1967.
13. SZYROCKI, J., *Samofinansowanie przedsiębiorstw (Enterprises' Selffinancing)*, Warsaw, 1967.
14. *Uchwała V Zjazdu PZPR (Resolution of the Vth Congress of Polish United Workers Party)*, Warsaw, 1968.
15. Decree n° 276 of Council of Ministers, dated October 28, 1965 concerning financial rules of centrally planned industrial association and their member-enterprises, *Monitor Polski*, n° 61, 1965.
16. ZIELINSKI, J.G., *Notes on Incentive Systems of Socialist Enterprises, Economics of Planning*, n° 3, 1967.

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- (1) Total number of plan indices in enterprises' studied varied between 102 and 135, averaging 125 (see 4, p. 29).
 - (2) The construction of a profit success indicator differs from country to country. In G.D.R. and Hungary it is volume of profit, when in Poland the following basic ratios have been introduced on January 1st, 1967, as obligatory success indicators for all State enterprises :

- 1) Not profitability :
$$\frac{\text{profit}}{\text{Total costs of goods sold}}$$
- 2) Gross profitability :
$$\frac{\text{profit plus turnover tax}}{\text{total costs of goods sold}}$$
- 3) Rate of profitability:
$$\frac{\text{profit}}{\text{value of fixed and working capital}}$$

In contrast to profit, gross income - used as success indicator in Bulgaria and Czechoslovakia - consists of profit plus wages and salaries and is obtained by deducting from total enterprise's revenue all non-wage costs except taxes.

- (3) In most cases plan targets revision during the year consists of lowering the original tasks. Discussing the "sources" which enable Polish industrial associations to lower plan tasks for their member-enterprises, T. KIERCZYNSKI lists : 1) downward revision of plan targets of industrial associations themselves; 2) industrial associations "reserves" consisting of allocating plan tasks higher than necessary for meeting their own plan targets and 3) "increasing tasks of those few enterprises which were on the way of substantial plan over fulfilment" (5).
- (4) Polish university textbook on financial system of industrial enterprises, describes the results of frequent plan changes in the following manner : 1) the functioning of incentives becomes problematic... Change (of plan) targets by their adjustment to actual performance serves as justification of many irregularities which are enterprise's faults and has strong disincentive effect; 2) the practice of plan changes makes impossible, practically speaking, the functioning of incentives for taut planning; 3) there are no incentives for improving planning technique... plan indices are frequently changed in a haphazard manner (e.g. the wage plan is being changed but cost plan not, etc.) so the enterprise during the year has no internally consistent (balanced) plan at all; as a result yearly plan becomes less and less a management instrument and serves mainly as a formal document justifying payment of bonuses; 4) the planning work at enterprise and industrial association level goes on the whole year round; the employees are at the same time convinced that the usefulness of their work is minimal..." (7, p. 332).
- (5) Needless to say, both organizational models - corporation and individual enterprise - can exist simultaneously in different branches of the national economy, as they do in fact exist in market economies, where level of concentrations varies greatly from branch to branch.

e) Preservation of Taut Planning with Simultaneous Changes in the Management Mechanism.

The final fundamental inconsistency of Polish economic reforms consists of attempts to introduce changes into management mechanism retaining at the same time the policy of very taut planning. Effective economic reforms and very taut planning cannot, however, be reconciled. This has been pointed out by Polish economists at the very beginning of economic reforms and was only too well proven by subsequent experience.

a. Formulation of the Problem.

The two-way relationship between growth strategy and especially plan tautness and system remodelling was very pronounced throughout history of East European economic reforms. It has been argued in East European economic literature that feasibility of certain plan targets, e.g. increased share of labour productivity in output growth or lower ratio of stock increases in national income, cannot be assessed without knowing what changes in management mechanism are going to be introduced. There was a general agreement that East European economies are capable of better qualitative performance than during the Stalinist period - hence potential possibility of assuming in the plan improved performance. The feasibility of achieving these more ambitious targets depends, however, on introducing management mechanism, which would induce this improved performance. On the other hand, a too taut economic plan (1) "undermines the general principle of economic calculation". The first result of a too taut plan is shortages, which directly endanger meeting certain plan targets. This leads to substituting the indications of economic calculation with principle "production regardless of costs" - to avoid even greater losses due to cumulative effect of shortages on interrelated system. Too taut plan (2) "undermines the effectiveness of incentive system" - regardless of its type (1). Where shortages prevail - enterprise results depend mainly on external factors : regularity and quality of supplies of raw materials, sub-contracted components, frequency and duration of electric power cuts etc. Under such conditions economic incentive must lose most of its effectiveness. (3) Rationing of means of production must follow too taut plan sooner or later to safeguard CPB's priorities. The economic consequences of this rationing are further weakening of economic calculation (many profitable choices are prohibited) and of many economic instruments, especially prices. Money also loses its feature as universal means of exchange (4). Finally the negative impact of sellers market on quality of output and enterprise product-mix policies (refusal to produce inconvenient output) should also be mentioned.

b. General Evidence Presented.

Let me use the history of Polish economic reforms as the proof that these interrelations actually exist and are of overwhelming importance. Three types of evidence can be provided :

- 1) Predictions of the following sequence of events which then come true : if appropriate changes in economic mechanism will not be implemented, it will lead to lack of changes in plan executants behaviour, hence to lack of improved performance in sphere X, hence to underfulfilment of plan target X.

Many such predictions have been made by Polish economists during the course of economic reforms and most of them proved painfully true. Here are two illustrations :

i) Prof. W. BRUS prediction in 1959 (2) :

Plan for 1961-65 assumes substantial improvements in stocks economics (see Table 12). These improvements will not be achieved without substantial changes in the management mechanism. These changes were not introduced and relative performance did not improve as witnessed by column 3 in Table 12. It remained almost exactly the same as in 1958.

ii) Prof. W. BRUS prediction in 1959 (2) :

Plan for 1961-1965 assumes that 80 % of industrial output growths will be achieved by increased labour productivity. This is a very "taut" target and its achievement depends on far-reaching changes in management mechanism. These changes were not forthcoming, but neither were the economic results (Table 13).

- 2) Another type of evidence is CPB's admission that the indicated above two-way relationship between rate of growth and changes in management mechanism, exists. As early as 1957 Prof. K. SECOMSKI, Vice Chairman of Planning Commission, stressed the impact of growth on system remodelling : "... Anti-inflationary measures required that many intended economic steps, e.g. changes in (economic) model, must have been limited or postponed" (5, 1958, p. 442) (2). A year later he stressed the influence of economic system on growth : "Transition to new stage of more intensive development of national economy must be preceded by carefully controlled process of putting national economy into order, by introducing changes in methods of economic management and by taking into account the need for the new system of influencing all socio-economic phenomena by economic means" (5, 1959, p. 416, author's italics). And as we indicated before, transition to this "more intensive development", i.e. more effective economic performance, has been already assumed in the formulation of Polish plans' targets.

Because the warnings about feedbacks between growth and model were directed to the CPB, Planners admission of their existence is of double importance. It constitutes an extra evidence that such interrelationships exist, and evidence given by a "hostile" witness and, secondly, it reveals CPB real commitment to economic reforms. If the CPB knows and admits that inflationary pressure makes system remodelling excessively difficult if not impossible, and nevertheless it does step up the growth rate till the very technico-organizational ceiling most of the time, it tells us a lot about planners' preferences.

- 3) The third type of evidence at our disposal is case studies indicating that certain changes in economic system were introduced and then withdrawn under pressure of growth requirements. For the sake of brevity, only three such examples will be provided, but each one from a different 5-year plan to indicate that the problem could be early identified by Planners and is of lasting character.

c. Cases studies.

1. Enterprise investments and taut planning (1956-60 plan).

An important part of an early (i.e. 1956-58) Polish reform was to increase the share of so-called decentralized (i.e. enterprise) investments. The intention was that "no ceiling should be imposed by higher authorities on decentralized investment, which volume should be determined by enterprises themselves" (5, 1959, p. 674) and decentralized investment initially rose sharply (see Table 14). The year later, however, (when investment in socialist sector increased 16,4 % in comparison to previous year level) we learn that "the broad possibilities of... decentralized investment were widely used exceeding original yearly plans prognoses... As a result... it was necessary to limit the total volume of these investments to assure equilibrium of the balances of construction materials and of capacities of construction enterprises". (5, 1960, p. 419). These limits have never been removed again and in 1961-1965 the share of enterprise investment in total investment in national economy was 7,1 % (4, p. 45).

2. Export effectiveness and taut planning (1961-65 plan).

The analysis of effectiveness of Polish export revealed that there is marginal group of exports of very low effectiveness. As a result, the permitted marginal rates of exchange for export transactions have been lowered appropriately to eliminate these ineffective exports. The volume of planned exports earnings has not been lowered, however, even temporarily, to allow expansion of export of more profitable products to take place. As a result, under the pressure of foreign exchange earnings requirements, the former marginal rate of exchange was soon reintroduced again (3). The effort to eliminate export of low effectiveness failed, and meanwhile, Polish foreign trade lost number of traditional customers (due to announced price increases), regaining of whom will not be costless.

3. Investment reserve fund and taut planning (1966-70 plan).

According to official estimates of Polish Investment Bank (1, p. 1), the planned investment costs are exceeded on an average by 25-30 %. Due to very taut investment plan, the investment reserve fund introduced for the first time in the history of Polish planning in the 5-year plan 1965-1970, was only 5 % of planned investment outlays (40 billion zlotys of reserves for 800 billion zlotys of planned investment spending). It is not astonishing that this reserve fund has been already spent and cautious estimates now talk of 900 billion zlotys as the minimum investment expenditure which will be required (3). These estimates already assume that numerous investment projects - originally envisaged in the plan - will be cancelled - and completion of many which already started - will be postponed. Needless to say, this development already caused serious imbalances in the plan, mostly in the form of not meeting consumer goods investment and output plans (see Table 14).

References :

1. BIENIAS, Investors Sins, Przegląd Techniczny, n° 4, 1969.
2. BRUS, W., Growth and (Economic) Model, Życie Gospodarcze, n° 2, 1959.
3. PISARSKI, G., Experience of the Current Five Year Plan, Życie Gospodarcze, n° 41, 1968.
4. PLOCICA, A., Inwestycje w Polsce. Zarys systemu i polityki (Investment in Poland. The Outline of System and Policy), Warsaw, 1967.
5. Roczniki polityczne i gospodarcze (Political and Economic Yearbooks), Warsaw. Published from 1958 on.

(1) Both quotations from (2).

(2) At that time, inflationary pressure was the result of substantial increases in purchasing power of the population rather than of high rates of investment. We should notice that threat of inflation, used as justification for halting economic reforms was grossly exaggerated. The overall price index of consumer goods and services in 1957 was 105.4 (1956 = 100) and of food-stuffs, for which, at that time, almost 50 % of population income was spent, only 102.7 (5, 1958, p. 821). (The same figures for 1958 (1957 = 100) were 102.6 and 102.2 (5, 1959, p. 720). It is also characteristic that fear of inflation did not deter Planners from drastic increases of investment rate the very next and the following year (compare 5, 1960, p.417-418). In light of the above, the thesis that reform measures were stopped as the result of inflationary threat, must be considered as pretext rather than truth. The present author gives much more weight to changed political climate, witness, among others, by return in 1959 of number of pre-1956 political leaders, such as E. Szyr, J. Tokarski, T. Gede and others, to high party and government posts, accompanied by simultaneous demotion of many reforms' supporters (J. Morawski, W. Bienkowski, S. Zolkiewski and others).

(3) Personal information.

10. East European Societies as a Subject of Social Research.

It seems that the study in depth of communist economic and social experiment can be of major importance for the advancement of social sciences.

In spite of theoretical difficulties involved, it may be useful to distinguish broadly between "man-invented" and historically developed social and economic relations. By the former I mean relations introduced as an effort to implement certain economic or social (deductive) theories, which had no former historical predecessor. Kolkhoz, labour accounting day or the principles of price fixing of producers goods are few of many examples.

What makes East European societies a unique subject of social research is the fact that they are - to an extent unparalleled in history - artificially created or "man-invented" societies. I.e. in those societies, historically developed economic and social relations were replaced by the "man-invented" mechanism, to the extent - and with the speed - unknown in the history of mankind.

The analysis of emergence and functioning of these artificially created societies, enables us to gain a better insight into a number of fundamental phenomena :

1. The problems (and dangers) of tampering with historically developed economic and social environment. These problems are similar in nature to the problems of destroying the equilibrium of natural (physical and biological) environment. As we did not fully recognize the inherent dangers in the latter, we also did not appreciate it properly in the former. Because the East European societies represent the most extensive application of social and economic engineering, their experience is not only an important early warning signal, but also enables us to study a number of new phenomena :

- the qualitative change in the character of the problems involved when "man-invented" relations become predominant, rather than partial form of social relations; e.g. the qualitative difference between the problems due to market interference and the problems resulting from abolishing of the market, between price distortions and arbitrary price system as a whole;
- the consequences of replacement of historically developed by man-invented mechanisms in many spheres of economic and social life, which never before have been subjected to such a replacement (e.g. new rules governing the services of veterinary surgeons or patent agents in Poland).

2. The analysis of artificially created societies enables us to gain a better insight into the inherent features of historically developed social and economic relations and/or mechanisms. It seems to me that these mechanisms possess two features of fundamental importance :

- they have built-in provisions for inherent weaknesses of human nature, from laziness to egocentrism to superiority complex;
- they also possess built-in countervailing mechanisms which, by acting on our self-interest, induce us - by and large - to behave in socially acceptable (beneficial) ways.

The analysis of "man-invented" mechanisms reveals that their failure may - in most instances - be ultimately traced to lack of one of these built-in features.

3. The analysis of artificially created societies poses a fundamental question :

- Have we, as a human race, reached already this stage of intellectual, social and ethical development, that we are able to invent and then to run (to operate) a better total economic and social system than that which historically developed ? Nobody questions our ability - empirically proved - to introduce successful partial improvements into historically developed economic and social mechanisms. To my mind the success of these partial improvements can be explained by the parallel partial character of changes in human nature (e.g. limiting the controlling role of market mechanism in such spheres as health and education, reflects the new level of social awareness of the human race today as compared with 50 or 100 years ago). At the same time, this limited character of change in human nature seems to indicate that we are still far away from the stage when comprehensive replacement of historically developed social and economic mechanisms would be desirable. Experience of artificially created societies of East Europe seems to support this thesis : first of all one can point to difficulties these countries are encountering in economic, social and political spheres; secondly, the essence of reform movements is to re-introduce - in this form or another - or to simulate historically developed economic and social mechanisms (e.g. guided market model, profit incentives, etc., etc.).

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TABLE 1. Share of Different Types of Prices in Expected Sales Volume - Hungary 1968 (*)

Type of product	Fixed	Maximum	Free
Domestically produced raw materials and semi-finished goods	30	42	28
Finished capital goods	3	19	78
Consumer goods	20	57	23

Source : adapted from R. PORTES - Answers to Prof. Peter WILES "Questionnaire on the Reforms of Planning in Hungarian Industry".

TABLE 2. Share of Different Types of Prices in Actual Sales Volume - Czechoslovakia.

Type of product	Fixed	Maximum	Free
Domestically produced capital goods, raw material + energy	16 (1967)	80 (1967)	4 (1967)
Consumer goods	85 (1965) 93 (1966,67) 83 (1-3,1968)	- - -	15 (1965) 7 (1966,67) 13 (1-3,1968)
Consumer goods expected, end 1968	60	20	20

Source : adapted from "Current Problems of Economic Planning in Czechoslovakia", p. 36 and 37, paper delivered at Sorrento Seminar, July 1968 sponsored jointly by University of Virginia, U.S.A. and C.E.S.E.S., Milan, Italy. By kind permission of the author.

- (*) Practically all statistics are of East European origin and no effort has been made to verify their accuracy. Not only such effort lies beyond the scope of the present paper, but moreover, East European reforms have been influenced by economic performance as seen by their leaders. It is true, that many statistical (and qualitative) economic informations of potentially negative political repercussion are not being released, but essentially there is only one set of macro-economic statistical data, and these data reflects what East European leaders believe to be - by and large - the true picture of the situation.

TABLE 6. Comparison of Planned and Actual Fund Changes in Socialist Sector in Subsequent Polish Mid-Term plans (in billion zlotys).

	Plan	Fulfilment	Percentage deviation
1955-1960	+ 43,2	+ 58	+ 34 %
1961-1965	+ 27,4	+ 59	+ 115 %

Source : Official Polish statistics quoted in W. KRECIK, op. cit., p. 15-16.

TABLE 7. Planned and Actual Stock Level in Polish Industry (in billion zlotys).

	Planned Level	Actual Level	Percentage deviation
1953	1,4	5,3	378,6
1957	3,5	12,1	345,7
1958	3,0	7,4	246,7
1959	4,2	5,0	119,0
1960	3,7	9,1	245,9
1961	4,8	12,1	252,1
1962	6,8	9,5	139,7
1963	6,3	10,0	158,7
1964	8,8	11,2	127,3

Source : Data of Polish National Bank, quoted in "Ekonomika Przemyslu" (Economics of Industry), op. cit., p. 519.

TABLE 8. Expected and Actual Fulfilment of Wage Plan in Poland in 1965.
(in billion zlotys)

	Expected fulfilment	Actual fulfilment	%
Total wage fund	169,0	201,8	119,4
Industry	77,3	90,9	117,5
Construction	21,1	24,4	116,1
Agriculture	6,4	9,5	148,4
Forestry	2,4	3,0	125,0
Transport + Communication	15,2	19,0	125,0
Domestic Trade	14,2	15,8	111,2
Municipal Services	5,2	5,9	113,4
Education, Science, Culture	11,9	14,2	119,3
Health, Welfare and Sports	6,6	7,3	110,6

Source : Report of Central Statistical Office on fulfilment of yearly national plan.

TABLE 9. Share of Stock Increases in National Income.

Countries	1960	1961	1962	1963	1964
<u>Socialist :</u>					
Bulgaria	13,0	8,2	11,4	11,5	11,8
Czechoslovakia	1,4	5,1	5,4	3,4	
Hungary	6,8	9,4	10,0	10,1	9,8
Poland	7,4	8,1	5,1	7,4	7,4
U.S.S.R.	9,1	11,7	10,2	8,4	11,4
Jugoslavia	4,6	1,9	0,4	5,1	10,2
<u>Capitalist :</u>					
Austria	2,8	3,7	1,2	1,6	2,8
France	2,5	0,4	1,6	1,2	1,9
West Germany	3,2	2,0	1,1	0,7	1,4
U.S.A.	0,7	0,4	1,2	1,0	0,6
U.K.	2,3	1,2	0,3	0,7	1,7

Source : Rocznik Dochodu Narodowego 1960-1965. GUS. "Więstnik Statystiki SSSR", n° 4, 1966 (Quoted after T. CHOLINSKI, G. MICHAJLOW, S. MILEWSKI, Gospodarka zapasami w krajach socjalistycznych), (The Economics of Stocks in Socialist Countries), Warsaw, 1967, p. 81.

TABLE 10. Number of Centrally Rationed Inputs - in Poland.

Year	Number of Centrally Rationed Inputs	Number of Material Balances (i)
1955	1.575	2.000 - 3.000
1957	1.088	
1958	455	
1960	325	
1963	400	
1964	416	
1965	463	

Source : Ekonomia Przemysłu (Economics of Industry), Warsaw, 1966, p.503-504.

(i) At the period of maximum development of material balances, see source in Table 22.

TABLE 11. Number of Material Balances and Centrally Rationed Inputs in some Eastern European Countries and U.S.S.R.

Country	Year	Material Balances	Rationed Inputs
Bulgaria	1965	1060	1030
	1966	1060	164
Czechoslovakia	1966	2000-3000 (1)	76
G.D.R.	1966	6000	ca 4500
Hungary	1966	1000-3000 (1)	ca 300-400
U.S.S.R.	1966	20000 (2)	20000

- (1) At the period of maximum development of material balancing; year 1966 refers to number of rationed inputs only.
- (2) These figure includes industrial inputs only. Total number of centrally balanced and rationed items is much higher. E.g. in '60s the U.S.S.R. Ministry of Health itself rationed ca 10.000 items.

Source : T. CHOLINSKI, G. MICHAJLOW, S. MILEWSKI, Gospodarka zapasami w krajach socjalistycznych (Management of Stocks in Socialist Countries), Warsaw, 1967, p. 43-54. The book is based mainly on over 50 papers delivered at IV International Conference on Supply Economics (Warsaw, November 1965) by Bulgarian, Czechoslovak, G.D.R., Hungarian, Polish and Soviet experts. The papers themselves are not easily available.

TABLE 12. Plan and Actual Share of Total Investment; Net Investment and Stock Increases in National Income (in percentage).

	1958 ^(a) (fulfilment)	1965 ^(a) (plan)	1965 ^(b) (fulfilment)
Total Investment	24.0	24.0	27.1
Net Investment in fixed capital	15.5	18.5	18.8
Stocks	8.5	5.5	8.3

Sources : - for (a) BRUS, W., Growth and (Economic) Model, ZG, n° 2, 1959 (in 1958 prices);
 - for (b) Statistical Yearbook 1968, p. 74 (in 1961 prices).

TABLE 13. Share of Labour Productivity Increases in Growth of Gross Industrial Output (in percentage).

1961		1962		1963		1964		1964	
plan	fulfil	plan	fulfil	plan	fulfil	plan	fulfil	plan	fulfil
83	67	69	52	66	55	73	79	65.4	46.2

Source : Roczniki Polityczne i Gospodarcze (Political and Economic Yearbooks) 1962, p. 207; 1963, p. 212; 1964, p. 232; 1965, p. 241; 1966, p. 352.
It is interesting to notice that these data are not published in Polish Statistical Yearbooks.

TABLE 14. The Rise of Decentralized Investment in Early Period of Economic Reforms (in billions zlotys, 1957 prices).

	1957	1958	%
Centralized investment	48,5 (90)	43,8 (76)	90,3
Decentralized investment	5,4 (10)	14,2 (24)	262,9
	53,9 (100)	58,0 (100)	107,6

Source : RPG-59, p. 675.

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REFORMES ET MECANISMES ECONOMIQUES EN EUROPE ORIENTALE

Colloque organisé à l'Institut de Sociologie, les 8 et 9 octobre 1970.
(avenue Jeanne, 44 - 1050 Bruxelles).

CONCLUSIONS

Z. FRANK-OSSIPOFF.

Pendant les quelques instants dont je dispose, il ne s'agit évidemment pas d'essayer de brosser devant vous un résumé complet des rapports et des discussions. Je m'efforcerai tout au plus de dégager quelques idées générales qui ont retenu mon attention, tout en m'excusant d'avance si je ne me fais pas l'écho d'autres pensées exprimées dans les documents de séance ou de vive voix et qui mériteraient d'être évoquées au même titre que celle que je vais effleurer.

Ainsi qu'il a été précisé dans un des rapports présentés à ce colloque, l'examen des principes dont s'inspirent les réformes permet d'observer dans tous les pays la tendance à accentuer l'usage d'instruments souples de contrôle de l'économie tels : les prix, les salaires, les impôts, les taux d'intérêts, en bref, l'usage de "paramètres" économiques.

Toutefois, l'importance du rôle attribué aux mécanismes "paramétriques" n'est pas le même dans tous les pays considérés; c'est sur cette base que l'on peut distinguer deux types des réformes en voie d'application dans les pays de l'Est européen :

- 1) réformes "paramétriques" axées sur le marché;
- 2) réformes "paramétriques" à orientation administrative.

Que les "paramètres" soient déterminés par les mécanismes du marché ou fixés par les instances planificatrices, nous sommes en présence d'une réforme "paramétrique" axée sur le marché lorsque l'utilisation d'instruments de contrôle souples est très importante, si pas généralisée.

Les réformes introduites en Hongrie, en Yougoslavie et, en son temps, en Tchécoslovaquie, peuvent être considérées comme étant de ce type.

Nous sommes par contre en présence de réformes à caractère "paramétrique" administratif lorsque l'introduction de mécanismes paramétriques s'accompagne du maintien de nombreux contrôles directs de type administratif. Dans ce cas, les divers "paramètres" sont généralement fixés par l'Etat. Les réformes adoptées en Allemagne orientale, Bulgarie, Pologne, Roumanie et en Union Soviétique se rapprochent plutôt de ce deuxième type.

Sous l'angle du renouveau des méthodes de gestion de l'économie, les deux procédures que nous venons de mentionner diffèrent sensiblement.

Dans le cas de réformes paramétriques axées sur le marché, il est possible d'en arriver à une grande homogénéité des vecteurs d'information sur la base desquels se réalise la gestion.

Il est possible ainsi d'assouplir, dans certaines limites, la planification et les règles de contrôle de l'activité productive. L'effort du planificateur portera, dans cette hypothèse, surtout sur la définition et la prévision des grandeurs macroéconomiques sur la base desquelles on orientera le développement de l'économie nationale. Il disposera, pour la réalisation de cette tâche, d'éléments d'appréciation plus valables que dans le cas d'une gestion économique purement administrative.

Au niveau des agents économiques de la base, les possibilités de réaction aux stimulants prévus par les gouvernants s'améliorent.

Le processus d'introduction de ce type de réformes est cependant très délicat et requiert une solide préparation préalable.

Les réformes du deuxième type, c'est-à-dire à tendance "paramétrique-administrative", se caractérisent par la dichotomie des instruments utilisés pour le contrôle de l'économie. Souvent, les mesures de nature administrative se superposent aux mesures impliquant le recours à des instruments plus proprement économiques, au détriment de la cohérence du contrôle exercé.

Les réformes s'approchant de ce deuxième type sont généralement introduites progressivement : elles semblent nécessiter moins d'opérations préparatoires, mais risquent, bien souvent, d'être ralenties par le cadre routinier et bureaucratique au sein duquel elles sont appelées à innover. Cette dernière observation trouve sa confirmation dans les exposés particuliers concernant la réalisation de la réforme dans certains pays.

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Après ces généralités, je m'en voudrais de ne pas rappeler ce qui a été souligné fort justement dans un des rapports présentés à ce colloque quant au caractère spécifique des réformes adoptées dans les divers pays de l'Est. Cette spécificité signifie que les mécanismes et les processus de gestion adoptés par un pays, dans le cadre de la réforme, pourraient difficilement être appliqués à un autre. Il faut, en effet, tenir compte du contexte historique, géo-politique et économique propre à chaque pays. Les comparaisons entre mesures décidées et résultats obtenus dans les divers pays d'Europe orientale et en U.R.S.S. doivent par conséquent être très prudentes.

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En U.R.S.S., malgré un certain retard, la réforme s'achemine tout au moins dans le secteur industriel, vers sa généralisation formelle. En juillet 1970, plus de 90 % de la production industrielle provenaient d'entreprises soumises au nouveau régime. Toutefois, les résultats obtenus, sous

l'angle d'un fonctionnement efficace de l'économie sont en-dessous des prévisions. Nous ne nous arrêterons pas sur les statistiques officielles publiées à propos des performances des entreprises soumises au nouveau régime. Il a été souligné que les écarts positifs caractérisant les résultats obtenus par ces dernières, comparativement à l'ensemble des entreprises industrielles, ne sont pas très importants. De plus, des circonstances externes ont influencé les résultats des entreprises gérées d'après les nouveaux principes. Et il ne faut non plus perdre de vue que ce sont les entreprises qui fonctionnaient le mieux déjà avant la réforme qui ont eu la priorité dans l'introduction du nouveau régime.

Il est, par contre, intéressant de rappeler certaines constatations faites par des personnalités et des spécialistes soviétiques :

- l'entreprise ne jouit pas de l'autonomie préconisée;
- les pratiques traditionnelles d'élaboration des plans continuent de subsister et la planification est toujours un processus très lourd, complexe et peu souple;
- les stimulants adoptés dans le cadre de la réforme sont peu efficaces.

Les responsables soviétiques semblent envisager d'assouplir davantage le carcan imposé aux entreprises. L'expérience novatrice de Chekino est un exemple de cette tendance. Elle est extrêmement intéressante. L'entreprise est, dans ce cas, autorisée à réduire le nombre de travailleurs tout en gardant l'entièreté du fonds des salaires prévu à l'origine; elle peut donc augmenter les salaires individuels, accorder des primes, etc. Les résultats obtenus, sous l'angle de la productivité, du rendement, etc. sont très encourageants. Toutefois, cette expérience ne semble pas destinée à être généralisée dans les mêmes conditions. En effet, la masse des entreprises ne se trouve pas dans les conditions particulièrement favorables qui se trouvaient réunies à Chekino en ce qui concerne les disponibilités de main-d'oeuvre qualifiée, les possibilités de reclassement des effectifs en surnombre, etc. De plus, les dirigeants soviétiques ne paraissent pas disposés à généraliser les avantages accordés en matière de rémunération à l'équipe de Chekino. La généralisation de ces avantages pourrait conduire, en effet, à une hausse sensible des salaires sur le plan macroéconomique.

Quant aux réformes introduites dans les autres pays d'Europe orientale, elles semblent parfois être plus effectives, tout au moins au stade actuel de leur réalisation.

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Ce que nous avons entendu à propos des techniques et de la politique adoptées en matière d'investissements, par suite de la réforme, confirme les constatations faites sur le plan général.

Soulignons tout d'abord qu'en matière d'investissements, les économies de type socialiste à planification centralisée bénéficient d'une importante prérogative par rapport aux économies de marché : la planification centralisée des investissements permet, en principe, de réaliser une croissance planifiée de la production dans la direction voulue, en tenant compte des effets externes engendrés par les investissements, sur la base de critères dépassant la simple considération de la rentabilité immédiate au niveau de l'entreprise. Cela explique pourquoi, dans tous les pays étudiés (à l'exception de la Yougoslavie où la législation est plus souple), les décisions concernant les investissements dans le domaine de l'infrastructure, du développement de branches particulières par la création de nouvelles entreprises, etc. continuent d'être prises par les instances centrales. En fait, les innovations en matière d'investissements sont modestes. Ce n'est que les dispositions réglementant l'élargissement des capacités de production des entreprises déjà existantes qui ont été modifiées. Dans ce cas, les opérateurs de la base ont vu leurs droits élargis.

Toutefois, dans tous les pays du camp socialiste ayant adopté une réforme "paramétrique" à tendance administrative, le plan macroéconomique comporte la prévision des investissements à réaliser par les entreprises et l'on impose à celles-ci un indice d'investissement. Dans certains autres pays de démocratie populaire, on assiste à une décentralisation du pouvoir de décision, dans le sens que c'est aux unions industrielles qu'incombent les décisions d'investissement dans le secteur qui est le leur. En Hongrie et en Yougoslavie, où la réforme fait davantage appel aux mécanismes du marché, les entreprises sont plus libres de décider de leurs investissements.

Des modifications ayant un peu plus de relief sont intervenues en matière de financement des investissements. Dans tous les pays, les subventions du budget sont en régression. Elles sont maintenues pour les investissements à longue période de maturation, pour les investissements peu rentables et d'infrastructure.

En général, on a davantage recours à des formes décentralisées de financement, comme le crédit et les ressources propres des entreprises. Mais dans ce domaine aussi, la situation diffère de pays à pays, et ce sont les économies où le rôle du marché est le plus accentué qui se caractérisent par des modifications d'envergure. L'on assiste alors à la création d'un système bancaire ayant une véritable fonction d'organe de financement. L'octroi du crédit est subordonné à des considérations de rentabilité, parfois de priorité, et se réalise sur une grande échelle. De telles situations s'observent en Hongrie et en Yougoslavie. Toutefois, ces pays ne sont pas à l'abri de phénomènes inflationnistes et des contre-mesures ont dû être envisagées.

Par contre, en U.R.S.S., où la réforme est tendanciuellement plus administrative, le financement des investissements par le crédit est resté en réalité bien en-dessous des prévisions, surtout en ce qui concerne les crédits à long terme. A ce propos, il faut rappeler une circonstance à laquelle se sont heurtés les réformateurs dans tous les pays considérés. Il s'agit de la psychologie des directeurs d'entreprise et, en général, des opérateurs de la base, qui est conditionnée par des clichés traditionnels. Cette circonstance les empêche de s'adapter aux nouvelles règles et d'avoir les réflexes que les plus amples libertés impliqueraient.

Ce que nous venons de dire nous amène à conclure que la politique d'investissement reste, dans la majorité des cas, une prérogative des instances centrales. Ces dernières ont-elles modifié les principes dont s'inspire la politique d'investissement, par suite des réformes ?

L'utilité d'une politique de croissance extensive (identifiée avec la politique suivie par l'U.R.S.S. à une période donnée) a été mise en cause dans certains pays de l'Est européen. Même en Union Soviétique, sur le plan théorique, on est arrivé à formuler une interprétation plus nuancée en ce qui concerne les mécanismes sous-jacents à des décisions d'investissement, l'on a rejeté le principe d'une relation directe entre le taux d'investissement et la croissance du revenu national. En pratique, cependant, l'on doit constater que le planificateur n'a nullement modifié son approche à la suite des réformes. Si l'on examine les plans quinquennaux adoptés dans les divers pays après l'introduction des réformes, l'on constate que les taux en question sont restés très élevés. Le planificateur n'a pas modifié non plus sa politique en ce qui concerne la nécessité de rendre les investissements plus efficaces. Il est vrai, cependant, que même en Union Soviétique des barrières dogmatiques ont été abattues et que le principe de la nécessité de rémunérer le capital est universellement accepté. De ce fait, le capital des entreprises fait l'objet de différentes formes d'imposition.

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Les débats à propos des prix ont fait apparaître l'importance de cet instrument pour les décisions microéconomiques, alors que pour les décisions macroéconomiques, les éléments d'indétermination, le nombre de facteurs prévisionnels, de considérations d'ordre social et autres ne permettent pas d'envisager la fonction du prix telle qu'elle se présente au niveau de la microéconomie. Mais déjà la fonction exercée dans le cadre des décisions quotidiennes et routinières est une justification suffisante de la tendance apparue dans les pays d'Europe orientale à rationaliser le système des prix.

Il y a beaucoup d'analogies entre le rôle et le fonctionnement des prix dans les économies de marché et dans les économies socialistes qui ont recours à certains principes du marché. Cette constatation est vraie quand il est question des microdécisions, où le rôle des prix du marché est important. Elle se vérifie aussi quand l'on doit avoir recours plutôt à des estimations, qui relèvent du microéconomique, mais qui sont nécessaires à l'appréciation de grandeurs macroéconomiques.

En ce qui concerne le pouvoir de décision et les éléments d'appréciation sur lesquels peuvent se baser les options de gestion, il y a une forte analogie entre la situation des grandes entreprises ou des groupements des pays à économie de marché et la situation des organes de l'administration économique (par exemple les ministères) des pays du camp socialiste. Les différences se situent surtout sur le plan concret et pratique, parce que les possibilités de réaction sont différentes.

Quant aux concepts théoriques, il est important de souligner que ni à l'Ouest, et encore moins à l'Est (dans le cas des réformes tendant à élargir le rôle du marché), les mécanismes des prix ne correspondent aux représentations un peu traditionnelles et dépassées qu'en donnent encore certains économistes en Occident, mais surtout certains spécialistes de l'Est, lorsqu'il est question d'analyser l'économie de pays occidentaux.

Les réflexions faites au cours des débats à propos de certaines estimations macroéconomiques ont mis l'accent sur les multiples précautions dont il faut s'entourer lorsqu'on se propose d'interpréter les phénomènes économiques à l'aide de grandeurs macroéconomiques. Dans le cas particulier des structures des prix qui existent dans les pays socialistes, il est important de ne pas perdre de vue les spécificités de ces structures. La structure des prix, en Union Soviétique par exemple, se caractériserait par le très grand écart entre le niveau des prix des biens d'investissement qui sont très bas et le niveau des prix des produits de consommation qui sont très élevés. Soit dit en passant, malgré le niveau relativement bas des prix des biens d'investissement, l'U.R.S.S. semble rencontrer des difficultés dans ses efforts d'exporter des machines et des équipements vers les pays développés de l'Occident.

Enfin, le problème des prix ne peut être dissocié de celui de la convertibilité. Ce sont surtout les économies socialistes, structurellement les plus orientées vers les marchés extérieurs, qui pourraient tirer avantage d'une convertibilité des monnaies. Malheureusement, la réalisation d'un tel projet se heurte à de grandes difficultés. Dans un certain sens, il n'existe même pas de convertibilité dans les transactions internes réalisées au sein d'une économie socialiste. Par exemple, en Union Soviétique, il est impossible à une entreprise d'acheter librement (sans autorisation préalable) des biens de production. Par ailleurs, les transactions entre pays socialistes continuent d'être basées sur des accords bilatéraux, et les facilités découlant du recours à la Banque Internationale de Coopération Economique sont toutes relatives. Pour les pays de l'Est, la convertibilité de leurs monnaies reste donc un objectif qui ne peut trouver de réalisation immédiate.

Si, dans le domaine des prix, il y a beaucoup d'analogie entre les mécanismes que l'on peut observer dans les économies de l'Ouest et de l'Est, des différences existent, par contre, dans le domaine de l'accumulation. A l'Est, les décisions d'investir sont principalement des décisions politiques, prises au niveau central, alors qu'en Occident, l'influence du marché est beaucoup plus grande. L'on observe, en principe, des taux d'accumulation beaucoup plus élevés dans les pays du camp socialiste que dans les pays développés de l'Occident. Toutefois, sous l'angle des éléments d'appréciation, il serait déjà plus ardu d'affirmer qu'il existe de véritables différences quand il s'agit du choix des investissements. Il est vrai que dans le modèle stalinien (qui peut être comparé à une économie de guerre) la microrentabilité est négligée complètement. Mais d'autres psychologies économiques peuvent remplacer les options de ce type. Et c'est vers des solutions plus nuancées qui, sous l'angle du rendement, tiendraient compte de divers éléments, que les pays de l'Est semblent s'orienter de plus en plus. En U.R.S.S. même, l'on procède à des études de marché qui devraient être le support de calculs mathématiques qui aboutiraient à des options optimisées à l'échelle nationale.

Il est impossible de rappeler ici la masse d'informations et de réflexions qu'a apportées le commentaire à propos du rapport sur le commerce extérieur.

La politique des pays de l'Est dans le domaine des transactions avec l'étranger s'est sensiblement modifiée au cours des deux dernières décennies.

Dans l'immédiat après-guerre, le régime d'autarcie, la situation politique internationale et le contexte politique intérieur des pays considérés expliquent le rôle passif attribué au commerce extérieur. Les transactions se réalisent sur la base d'accords bilatéraux et n'impliquent pas des considérations et des calculs de rentabilité. C'est à cette époque qu'apparaît la théorie des deux marchés parallèles. Le commerce est peu intégré à l'ensemble de l'activité économique.

Le dégel politique intervenu après la disparition de Staline, entraîne, dans les relations extérieures, des modifications d'autant plus marquées que l'on réalise à l'Est qu'il est utile de développer les contacts avec les pays de l'Occident à technologie plus avancée. Cette tendance générale est particulièrement accentuée dans les petits pays dont les économies sont sensibilisées aux problèmes de la division internationale du travail. L'on tend non seulement à développer les échanges mais aussi à en rationaliser les flux. L'on prend conscience du rôle actif que peut jouer le commerce extérieur comme facteur de la croissance. Le calcul économique est préconisé, mais la mise en pratique de ce principe est rendue difficile bien souvent par l'absence d'un instrument valable pour en mesurer l'efficacité; c'est dans les pays où les réformes ont recours à des instruments paramétriques de marché que les possibilités de réussite sont plus grandes.

L'on assiste à un assouplissement de la politique adoptée à l'égard de la Communauté Economique Européenne. Plusieurs pays de démocratie populaire font des démarches pour devenir membres du G.A.T.T.

Si, d'une part, le monopole du commerce extérieur est maintenu dans tous les pays (pour des raisons évidentes), l'on s'efforce, d'autre part, d'assouplir les procédures des transactions et l'on en arrive, dans certains cas, à autoriser des entreprises industrielles à prospecter les marchés étrangers. L'introduction d'un système de licences, et des tarifs douaniers qui semblent exercer un rôle régulateur, s'observe même parfois.

Enfin, de nouvelles formes de coopération industrielle et commerciale entre entreprises de l'Est et de l'Ouest ont tendance à se développer.

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Un éclairage d'une toute autre nature des problèmes que pose la gestion de l'économie planifiée et des méthodes à mettre en oeuvre pour elle a été fourni par deux rapports ayant respectivement pour thème : "Le théorème de Ljapunov et le modèle optimal de l'économie planifiée" et "La cybernétique et la réforme de la planification".

Le premier d'entre eux apporte une justification mathématique aux tendances multiples qui se font jour dans les pays socialistes, dans le sens de la décentralisation de la planification, le deuxième a mis, une fois de plus, en lumière tout l'intérêt que l'outil économétrique offre aux planificateurs.

La discussion a cependant fait ressortir combien le caractère optimal des modèles économétriques est rendu difficile par la complexité et la diversité extrême des variables intervenant dans le processus de production et de distribution.
