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† By graduate student is meant anyone within five years of obtaining his/her first degree or within five years of registration as a graduate student.

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THEME

The dilemmas of a socialist economy: the Hungarian experience

János Kornai*

Historical background

It will be useful to begin by a short historical retrospect. In Hungary, the centralisation of economic management started in 1948–1949, and was soon fully developed. The majority of firms were nationalised, and a wide co-operative sector was established—mainly in agriculture. Public firms were controlled centrally, with the aid of a hierarchical multi-level apparatus. The fulfilment of production plans given to firms, as well as adherence to the input quotas allotted to them, was strictly obligatory. Price-setting and the allocation of investment were highly centralised. The independence of firms was narrowly limited.

The first proposals for a decentralisation reform appeared from 1954 onwards.[†] Yet for more than ten years only slight modifications were introduced. Then, in the mid-1960s, discussion of the reform intensified. For the first time in history a country's leading economic policymakers, leading civil servants, managers of public firms, and academic economists elaborated together, in the minutest detail, the blueprint for a new economic mechanism for the whole country. After thorough preparation, all legal rules giving effect to the reform were introduced on the same day: 1 January 1968.[‡]

The main purpose of the reform was to free the public firm from bureaucratic ties and to increase its autonomy. In accordance with the reform, the firm does not receive an obligatory directive as to what it should produce in the next year. Rationing of inputs by obligatory quotas has almost entirely ceased. 'Command economy' has been replaced by a system in which independent firms are connected to a large extent through the market. Some prices continue to be set centrally, but the sphere of contract prices determined by the agreement of seller and buyer has been enlarged considerably. The right of investment decision is shared among central organisations, credit-granting banks, and firms independently initiating investment and also financing part from their own savings.

* Professor of Economics, Institute of Economics in the Hungarian Academy of Sciences. This paper was delivered as the Twelfth Geary Lecture, 1979, at The Economic and Social Research Institute, Dublin. The Institute is not responsible for either the content of the paper or the views expressed therein.

[†] The pioneer studies of Péter (1956), published in 1954–1955, must be especially mentioned. The author's book *Overcentralization in Economic Administration* (Kornai, 1959) was also among the first such proposals; its mimeographed versions came out in 1955–1956.

[‡] There is ample literature on the Hungarian reform available in English. Attention is called first of all to Hungarian literature as the most authentic on the subject, such as: Nyers (1970), Friss (1971), Gadó (1976), Csikós-Nagy (1978).

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The reform—like any other thorough social change—cannot be effected without friction or resistance. The enforcement of the legal rules introduced on 1 January 1968 is in the hands of persons among whom there are supporters as well as opponents of the reform. Some of the original reform ideas have been carried through only partially: forward leaps and retreats alternate.

What is more, external conditions have changed for the worse. The Hungarian economy is an open one. The price explosion on the world market, and the unfavourable turn in the terms of foreign trade for Hungary have added to the trouble.

In spite of that, it can be said that the reform brought tangible results. During the ten years since the reform, production has been growing strongly and rather steadily at a yearly rate of 5-6%. There is full employment and indeed, increasingly, labour shortage. Since reserve labour has been almost entirely absorbed, the growth of production reflects mainly rising labour productivity. Real wages have been growing regularly, supply to consumers has noticeably improved, and the variety of consumer articles has widened. All these results are especially remarkable in a period in which many other economies suffer from recession, unemployment, and accelerating inflation.

Although it would be worth analysing the results achieved since the reform in more detail, it is not these that I wish to discuss, but rather some of the difficulties and problems of the Hungarian economy. Hungarian economists are in a privileged position to observe a great experiment, unique in history. I feel that it is our duty to provide information on the experience of this experiment, and not only on the spectacular successes which are reported in the daily press, but on the less conspicuous difficulties as well.

Efficiency and the principles of socialist ethics

One of the aims of the reform was to render the functioning of Hungarian economy more efficient. In the following I shall enumerate *some of the necessary conditions for economic efficiency*. I do not strive for completeness: certainly quite a few important conditions will be left out of the list. I do not undertake, either, to reduce the conditions of efficiency to a small number of *final* conditions, that is, to discuss the question in an axiomatic form. Instead, I rest content with discussing—in a less rigorous style—five conditions which have often been the subject of dispute in relation to the Hungarian reform.

- (1) A material and moral *incentive* system is needed which stimulates better performance from all individuals participating in production—leaders and workers alike.
- (2) Careful *calculation* must be made which takes into account benefits and costs. Scarce resources must be used economically. Non-efficient production activities must be terminated.
- (3) There must be fast and flexible *adjustment* to the current situation and external conditions.
- (4) Decision-makers must display *entrepreneurship* through their initiative, disposition for innovation, and risk-taking.
- (5) Every decision-maker must assume *personal responsibility* for the matters in his or her charge and for decisions.

There is not any particular 'socialist' content in the above-listed five conditions. Yet they cannot be considered as 'capitalist' ones, either. They are principles of general validity for efficient management and organisation. The official economic conception of Eastern European countries has always acknowledged—not only since the reform, but earlier, too—these requirements as the necessary conditions for economic development and for raising labour productivity.

Another group of values may be called briefly: *the ethical principles of a socialist economy*. Again I do not strive for completeness; quite a number of known principles have been left out of the list. Similarly, as in talking about efficiency, I do not try to give an axiomatic formulation or to establish a few *final* postulates. I shall confine myself to putting forward four principles. They may even partly overlap. In any case, their importance is justified by the fact that they have great practical influence in economic life.

(a) The well-known principle of *socialist wage-setting*: 'to everybody according to his work'.[†] This includes the other well-known distribution principle: 'equal pay for equal work'.

(b) Principle of *solidarity*. Socialism eliminates the cruelty of capitalist competition, which casts out the weak. The weak must not be punished for their weakness. On the contrary, they must be helped to rise.

(c) Principle of *security*. Each member of society should feel secure. This principle is closely connected with the preceding principle (b). Some of its important implications are as follows.

- (i) The individual or small community gains a feeling of security by knowing that, when in trouble, he or they can count on the help of the large community.
- (ii) Society provides full employment, not only momentarily, but once and for all. Fear of unemployment ceases.
- (iii) The same thing can be said not only of full employment but, more generally, of every achievement. The feeling of security is further strengthened by the fact that the level once attained is also guaranteed for the future by society.

(d) *Priority of general interest* over partial interest, whether the latter is that of an individual, or of a small community. This principle implies priority of the long-term interest of several consecutive generations over the exclusive short-term interest of today's generation.

Among economists of socialist conviction the view has taken root that there is no contradiction between the two value systems—efficiency and socialist ethical values. Perhaps this idea was expressed most forcefully in the classical study on the theory of socialism written by the great Polish economist, Oscar Lange (1938). Lange presents a decentralised market economy along Walrasian lines, which functions efficiently, and, at the same time, fits without difficulty into a social system built on socialist principles.

This traditional interpretation is not justified in the light of experience. It seems that conflicts are inevitable between the conditions (1)-(5) of efficiency, on the one hand, and the ethical principles (a)-(d) of a socialist economy on the other. Numerous decision-making dilemmas of the socialist economy are caused precisely by the clash of these two different value systems.

Let me add a personal remark here. Although I try to be as objective as possible in analysing the problems of the Hungarian economy, it is almost inevitable that my

 \dagger The classical formulation of the principle was given by Marx (1890–91) in his Kritik des Gothaer Programms.

subjective viewpoint should emerge. On the one hand, I am an economist and, in my other works, I deal with mathematical economics. It is no wonder if my thinking has been 'spoiled' by such principles as 'rationality' and 'efficiency', and by theories of the beneficial effects of decentralised markets. On the other hand, my thinking has been deeply influenced by socialist social and ethical ideals. Therefore, I feel as my own the dilemmas that face every economist concerned with the actual conditions of the Hungarian economy.

We shall examine three classes of problem: (i) incentive linked to profit, (ii) the survival of the firm, and (iii) the growth of the firm. In these areas, the conflicts appear to be particularly sharp between the two value systems: efficiency conditions and socialist ethical principles.

Incentive linked to profit

One of the most characteristic efforts of the Hungarian reform was to strengthen material incentive linked to the profit of the firm. That would serve to meet all five efficiency conditions, but particularly the first two, namely the development of an incentive system, and careful calculation involving a strict comparison of benefits and costs.

Experience shows, however, that profit incentive clashes with ethical principle (a) which prescribes that everybody should have his share in material goods 'according to his work', and that there should be 'equal pay' for 'equal work'.

In Hungarian firms, workers' profit sharing has been introduced. This is in itself sufficient to infringe principle (a). The total earnings of two workers—of identical performance and receiving identical wages—may be different if one receives more through profit-sharing and the other less. What is more, Hungarian firms have more independence in wage setting. The more profitable firm may pay more not only through profit sharing, but also by higher wages, than the less profitable one. For these reasons the earnings of workers of identical performance may differ significantly.

Let us take an example. Firm G is more profitable than firm H. This may reflect the better work of managers and workers in firm G: discipline is stronger, they pay more attention to the quality of products and adjust more flexibly to external circumstances and, therefore, get more profit. It is also possible, however, that the larger profit of the firm is not through their own efforts. Several factors—independent of them—may play a role. For example, firm G has inherited better machinery from the pre-reform period than the less lucky firm H. Or, while the selling prices of their products are centrally set for both, it so happens that those set for firm G contain a high profit margin, while those for firm H contain a low one. Or, both firms are exporting, and world market prices have changed favourably for firm G and unfavourably for firm H.

The managers and workers of firm H will feel that the established proportions of earnings are 'unjust'. It is not because of their poor work that they have little or no profit—why then should they be punished? Therefore, they try to put pressure upon higher authorities to equalise earnings. The higher authorities themselves often feel that it is wrong to tolerate any serious inequality, since that would contradict the egalitarian traditions of the socialist movement and the acknowledged principle of 'equal pay for equal work'.

For the levelling trend, numerous means are available. First of all, there are rules of general validity which prescribe in what way the gross profit of the firm should be divided among taxes and other payments to central and local authorities, investment and welfare funds remaining with the firm, and amounts payable by way of profit-sharing and wage-increase. Complicated and rather sophisticated formulae are prescribed, guided by various considerations—including income equality. This makes the incentive system less transparent, which in itself diminishes the incentive effect. But that is not all. Intermittent *ad hoc* intervention into the financial situation of the firms is widespread, in order to tax away incomes that are 'too high', or to compensate for losses suffered because of 'objective difficulties'. In the long run, almost two-thirds of the gross profit of firms has been taxed away and redistributed in past years.

The frequent unforeseeable and incalculable redistribution flowing through a hundred channels makes profit incentive illusory from several aspects. In microeconomics, it is assumed that the expenses of the profit-maximising firm are delimited by the so-called budget constraint. Yet, in the circumstances described above the budget constraint of the firm 'softens'; it does not really bind decisions of the firm.[†] The firm can go beyond the budget constraint without any grave consequences. If it suffers financial losses because of uncovered expenses, the state will sooner or later cover these.

If a firm gets into difficulties—through, for example, reasons beyond its control, such as external difficulties—it may react in two different ways. One is to face the difficulties. This may not be successful, and the firm may fail. And, even if successful, it demands sacrifice. As long as the difficulties of the firm have not been overcome and losses are incurred, earnings are less than in more successful firms. The purpose of the first approach is to adjust *production* as flexibly as possible to the real conditions. The other approach is to ask for help from the higher authorities. The firm sends delegates who complain and 'cry'. Lobbying begins: the firm tries to get support for its case in the political and social organisations and in the upper-level state offices. Personal connections are used. The purpose of the second approach is to get *financial help*: as much government subsidy, tax allowances, and 'soft' credit as possible, and as soon as possible.

As a result of the second approach, the firm which had been given much autonomy by the reform subjects itself, almost voluntarily, to patronage. By asking for help it confirms its dependence on the financial organisations, the banks, the price office—in short, on all central institutions that can influence its financial situation.

I should mention here the effect of the income levelling tendency on the entrepreneurial spirit, which figured as the fourth condition of efficiency. Innovation—whether it be a new product, a new technology, a new organisation, or the penetration of a new market—involves risk. Those who do not succeed will lose. Therefore, it is worth trying only if success brings a *large* gain. In post-reform Hungary the economic leader cannot lose a lot, but in the same way he cannot gain a lot either. There is no scope for any great advance. The firm with uncommon and provocatively high profit will be sooner or later 'tapped'. The levelling of incomes involves more or less also the levelling of performance.

These are the first examples of conflicts between efficiency conditions and the ethical principles of a socialist economy. The harder the budget constraint of the firm, the more the earnings of managers and workers of the firm depend on actual profitability, the more the firm can break away from the wage-setting principles related solely to individual work, so that 'unjust'

† In regard to the softening of the budget constraint, and its effect on behaviour of the firm, see *Economics of Shortage* (Kornai, forthcoming) and Kornai (1979).

differences in earnings may appear. On the other hand, the more the principle of 'equal pay for equal work' is asserted, the more the stimulating effect of profit incentive will be weakened.

Survival of the firm

The next subject of our analysis, namely, the survival of the firm, is closely related to the preceding one. We set down as the second principle of efficiency that, if the comparison of benefits and costs shows an activity to be inefficient, it must cease in the interests of efficiency of the economy as a whole. This must be done even if it causes a serious loss of prestige for the firm's managers, and possible temporary unemployment for its workers.

This condition can come into conflict with ethical principles (b) and (c). According to the principle of solidarity, a weaker community must not be allowed to fail. Rather, it should be supported so that it can continue its activity and rise. And, according to the principle of security, no single member of society need fear failure. Everyone should feel secure that the personal achievements once attained—such as the availability of uninterrupted work—should be guaranteed also for the future. In particular—and this is where our subject is related to that of the previous section—they should feel secure where the troubles are not due to their own fault, but perhaps to external conditions beyond their control.

During the first ten years of the reform in the Hungarian economy practically no bankruptcy occurred: no firm operating with losses was fully liquidated. Workers are guaranteed not only employment, but even employment in their present job. Following the price explosion on the world market not a single Hungarian firm went bankrupt. Using the popular expression in Hungary: the state budget 'took over' the losses. The 'natural selection' entailed by economic competition did not take place: the strong and the weak, the active and the passive, the innovative and the incompetent all survived the storm.

The state can rescue the firm on the brink of ruin by various methods. It grants special subsidies; if the product in question has a fixed price, it allows a price increase out of turn; it grants tax exemption or duty concessions to the firm, the bank permits credit at favourable terms or allows postponement of repayment, etc.

There is no way to judge clearly the resulting situation. Solidarity and security are in themselves great values. The life of the firm, and the life of the people working for the firm, become more secure, since fear of any vital danger is removed. The same phenomenon, however, inevitably induces an easy-going, lazy attitude. If the firm's survival is automatically guaranteed, the personal responsibility of leaders is obscured, thereby violating the fourth condition of efficiency.

Since it is a related problem, I shall mention at this point also the security of individual employment. The Hungarian economic system freed the workers from the nightmare of unemployment, which not only causes grave financial losses to the society and to the individual, but also debases human dignity, forcing workers to humble themselves before the employers. The elimination of unemployment is an achievement of great historical importance. But then we must face the fact that guaranteed full employment, with its accompaniment of chronic labour shortage, also has drawbacks. People are not all alike: some are more dutiful than others, there are the industrious and the lazy, those who do their work with care and those who neglect it. The fact that the labour market is a 'seller's market' creates a favourable position not only for the former but also for the latter. The manager of a workshop or plant will think twice before he sacks a careless worker, since it is not at all sure that another will be found to replace him. And, even if fired, the worker does not really feel punished, because it is usually easy for him to find a new job.

These closely interdependent phenomena—guaranteed survival of the firm and guaranteed individual jobs—lead to very difficult and deep-rooted problems. Can a society achieve high efficiency exclusively by means of *positive* material and moral incentives, that is by rewarding good work? Are *negative* economic incentives—the fear of failure, and of individual material and moral loss—dispensable?

This much seems certain: that here we are faced again with grave dilemmas, the conflicts of different value systems. There is contradiction between the efficiency conditions on the one side, and the ethical principles of solidarity and security on the other.

Growth of the firm

Our next subject is the growth of the firm and, in this context, the allocation of investment. Here the conflict of the various efficiency conditions and the ethical principles is manifest in a possibly even more complicated form than in the two fields previously analysed.

Let us start from a hypothetical system, in which the investment decision has been perfectly decentralised. This system would certainly have some advantages from the viewpoint of efficiency. Conditions (3), (4) and (5) would be more vigorously asserted: the entrepreneurial spirit would strengthen, together with initiative and the propensity to innovate. Adjustment would become more flexible. Personal responsibility for investment decisions would be less ambiguous.

Yet, even ignoring for the time being the ethical aspect, perfect decentralisation would come into conflict with one or another of the efficiency conditions. First of all, it would clash with the second condition concerned with the calculation of benefits and costs, if we interpret these categories broadly. We would be faced with a wellknown problem of welfare economics. A perfectly decentralised market—without any governmental or other social intervention—does not count the external effects of local decisions that are not reflected in market prices: and this holds whether we are considering either external benefits, or external costs. This consideration leads on to ethical principle (d)—priority of social interest. If every firm decides on investment according to its own profit interest, then some projects with major external benefits may be suppressed, while others with major external costs may proceed.

Aware of this dilemma, the Hungarian reform of 1968 decided that responsibility for investment decisions should be divided between the higher and the lower levels of management. A considerable degree of decentralisation was envisaged as compared with the pre-reform period, but a large amount of authority was still left in the hands of central institutions. Thus, for example, in 1976 almost half of total investment in the economy was allocated by central decisions. The balance, accounting for a little over half the total, is classified as 'investment of firms', because it is initiated by the firm and, formally, the investment decision is made by the firm. But only half of the so-called 'investment of firms' is financed exclusively from the firm's own savings. Thus only about a quarter of total investment can be considered as fully decentralised. For the other quarter, the firm has to seek government subsidy or long-term credit, which

means that the central planning and financial organisation, the bank and the firm take part jointly in these investment decisions.[†]

The established arrangement, involving a combination of centralisation and decentralisation, has numerous advantages. Where fully decentralised investments would result in unfavourable proportions from the overall social viewpoint, the central authorities can counterbalance these by centrally decided investments. In this way, the allocation of total investment may be adjusted satisfactorily to the central plans, without the need for central allocation of all investment resources down to the last penny.

It may be seen, therefore, that, in the case of a conflict, the centre has the means to assert priority of social interest over local interest or over the interest of the firm. The centre can serve the long-term interests of society—not always expressible in terms of money—as opposed to the short-term profit interest of the firm.

This sharing of decision-making authority allows the use of many different sources of information in preparing for any particular decision. Firms provide the specific partial information, and the higher authorities participating in the decision-making process provide the comprehensive view of economy-wide interrelations and of longterm plans.

Yet the advantages are accompanied also by certain disadvantages. Since the majority of investments need central financial subsidy or credit, decision-making is preceded by a lengthy bureaucratic process. This reduces the flexibility of adjustment, involving infringement of the third efficiency condition.

The firms and lower-level authorities try to influence higher authorities. They argue their case, but may also use personal connections, if they feel that this will promote the investment project initiated or supported by them. Economists and planners working in the central authorities are not impersonal representatives of overall social rationality—they are not the philosophers of Plato's ideal state endowed with wisdom soaring above society. They are real people living in the midst of society, linked by a thousand threads to their colleagues active in economic life. It is impossible to know what role is played in their decisions by the strictly rational propositions of economic calculations, as compared with personal motives, which perhaps are subsequently rationalised. Those in the higher authorities who make decisions about investments should always pay special attention to the external effects of projects not reflected in the calculation of the relevant firm. This consideration, however, is often dimmed by considerations advanced by the internal interests of the firm involved.

We must understand the sociology as well as the social psychology of the investment decision process in order to answer also the question: what happens if an investment fails? It is simply impossible to find out who is responsible for the wrong decision. Since decision-making was preceded by a multi-stage iterative process—both in the assembly of information and in the preparation of decision-making—every participating organisation and person is responsible. They are responsible—and yet they are not. They can say that they did not really want the investment in this particular form, but that they were forced to compromise with the other participants. Ultimately, therefore, personal responsibility for investment decision-making is lost, in violation of the fifth efficiency condition.

We have now arrived at one explanation of the phenomenon treated in an earlier part of this paper, namely, that the state helps out of difficulties the firm suffering losses.

 \dagger For a discussion of responsibility for decision-making in investment allocation after the Hungarian reform, see the study by Deák (1978).

It is not simply an impersonal 'state' that helps but rather the use of state resources for this purpose by all the officials participating in the original action through collective decision-making. Let us suppose that a wrong investment decision was in fact the cause of the losses. Construction work has been protracted, machines and buildings cost more than expected, the goods produced by the new capacity and intended for export cannot be sold at the price envisaged, etc. Who will pay for this? Every participant in the decision has an interest in ensuring that the question of responsibility will not be pressed. The fact alone largely explains why the troubled firm has to be helped out.

The situation regarding the allocation of investment is also closely connected with the two types of problems discussed earlier in the paper. As I have mentioned, only a small part of investment is implemented through self-financing or from such credit as the bank would allow by considering only expected profits. Government subsidy or long-term credit may be granted also to firms in a bad financial situation. Therefore, the firm becomes aware that neither its survival, nor even its growth, depends strictly on profitability. This is one of the most important explanations of the phenomenon we denoted as 'the softening of the budget constraint'. In implementing the investment decision, the firm can go beyond the financial resources available currently or in the near future, without too much risk. The loss will sooner or later be covered by the state. This may lead then to thoughtless investment initiatives, and to wasteful implementation, which again harm efficiency.

Let us sum up what has been said. On the one hand, there is the ethical principle (d), stating that social interest must be given priority over partial interest. Adherence to this principle is one of the main reasons why the decision-making responsibilities of the firm or of the local institution are limited in the allocation of investment. In order to represent the social interest, the central authorities retain a wide sphere of authority. But the practical application of the principle often conflicts with the other side i.e. with the conditions of efficiency. In addition, ethical principle (d) is not enforced consistently: partial interest will prevail again and again, even when it is definitely contrary to the common interest of society.

A few concluding remarks

We have considered three interrelated issues: the questions of profit incentive, and those of survival and growth of the firm. We have seen how the different efficiency conditions and ethical principles may come into conflict. What has been said has been intended to indicate the *dilemmas* themselves, which face Hungarian economic life, rather than how these dilemmas are to be solved. Since the Hungarian experience cannot be 'advertised' as having found the way to eliminate every intricate contradiction, we can speak less of the resolution of the dilemmas. Indeed, it may even be one of the best qualities of Hungarian practice in recent years that it has not sought at all to create the illusion of having found a final solution, but assumes the task of experimenting and exploring ways and means.

I would not like to give the impression, either, that I know the recipes for surmounting the difficulties. The 'healer-economist' is a well-known type: he has a cure for every economic disease. (Perhaps he even offers the same cure for all ailments.) Or, to use another metaphor, the 'apostle-economist' holds in his hands the complete and detailed blueprint of an ideal society, the adoption of which he preaches in a loud voice and

full of self-confidence. I feel alien to these colleagues. I am one of those who is aware of the poverty of our science: we can ask questions rather than answer them. We can suggest only with much caution some or other reform, more or less comprehensive. Even then we have to call to the attention of those carrying out the reforms that the change will involve advantages as well as disadvantages, similar to the medicine which has a healing effect and at the same time an undesirable, sometimes even dangerous, side-effect.

There are no 'pure' and perfectly 'consistent' societies. Every real system is built upon the practical compromises of mutually contradictory principles and requirements. This is characteristic also of the Hungarian post-reform situation. In the better case—which is, luckily, rather frequent—the compromise is a 'convex combination' of contradictory principles and requirements. The beneficial effect of all the principles involved in the given process is asserted, at least partially. In the worst case, however—which is not infrequent, either—there is no 'convexity'. Two principles clash: the exclusive application of either would involve disadvantages, but also significant advantages; yet their combination manifests the disadvantages of both conspicuously, and suppresses their advantages. Such a blend of principles and requirements often develops, in which efficiency and ethics are both lost at the same time. In some cases, the combination of a decentralised market—geared towards efficiency—and central intervention—to take account of socialist ethics—can operate in such a way as to mutually extinguish their separate beneficial effects.

Reformers of economic institutions and mechanisms are prone to 'perfectionism'. Seeing the first weak points they wish to reform the reform continuously. For example, during the 11 years that have passed since the 1968 reform, over one hundred orders and legal rules were issued to regulate the profit and profit-sharing of the firm. However well-considered and ingenious some of them may be, the incessant search for perfection is precisely what undermines their effect. Participants cannot train themselves well in the game if the rules are constantly changing. Therefore, we have come to face a new dilemma: the institutional framework—as yet only half-proved—cannot settle down because of uncertainty generated by the constant search for perfection and the disadvantages of the resulting instability.

The tradition of economics has accustomed us to the concept that everything can and must be 'optimised'. It is therefore understandable that the idea arose that an 'optimum economic system' must be designed, combining the best possible 'rules of game' and the best operating control mechanisms. Those setting this aim envisage something like a visit to a supermarket. On the shelves are to be found the various components of the mechanism, incorporating the advantageous qualities of all systems. On one shelf, there is full employment as it has been realised in Eastern Europe. On another, there is the high degree of workshop organisation and discipline, like in a West German or Swiss factory. On a third shelf is economic growth free of recession, on a fourth, price stability, on a fifth, rapid adjustment of production to demands on the foreign market. The system designer has nothing to do but push along his trolley and collect these 'optimum components', and then compose from them at home the 'optimum system'.

But that is a naive, wishful day-dream. History does not provide such supermarkets in which we can make our choice as we like. Every real economic system constitutes an organic whole. They may contain good and bad features, and more or less in fixed proportions. The choice of system lies only among various 'package deals'. It is not possible to pick out from the different 'packages' the components we like and to exclude what we dislike.

It seems to me that it is impossible to create a closed and consistent socioeconomic normative theory which would assert, without contradiction, a politico-ethical value system and would at the same time provide for the efficiency of the economy.[†] It is impossible if that theory seeks to be realistic and wishes to take into account the true behavioural characteristics of people, communities, organisations and social groups.

It is more important and more pressing to observe existing societies, and to find an explanation for their behavioural regularities. Our science has to find the answer to the question; what compromises between the different normative principles are brought about by the social forces of the different social systems? This is a scientific activity that may bring some social benefit. It is true that it does not lead to the design of a perfect society, but it may contribute to the improvement of existing ones.

Bibliography

Arrow, K. J. 1951. Social Choice and Individual Values, New York, Wiley

Csikós-Nagy, B. 1978. Ten years of the Hungarian economic reform, *Hungarian Quarterly*, pp. 31–37 Deák, A. 1978. Enterprise investment decisions and economic efficiency, *Acta Oeconomica*, vol. 20, pp. 63–82

Friss, I. (ed.) 1971. Reform of the Economic Mechanism in Hungary, Budapest, Akadémiai Kiadó

Gadó, O. (ed.) 1972. Reform of the Economic Mechanism in Hungary, Budapest, Akadémiai Kiadó

Gadó, O. 1976. The Economic Mechanism in Hungary. How it Works in 1976, Budapest-Leyden, Akadémiai Kiadó-Sijthoff

Kornai, J. 1959. Overcentralization in Economic Administration, Oxford, Oxford University Press

Kornai, J. 1979. Demand-constrained versus resource-constrained systems, Econometrica

Kornai, J. Forthcoming. Economics of Shortage

Lange, O. 1964. On the economic theory of socialism, in Lippincott, B. E. (ed.) On the Theory of Socialism, New York, McGraw-Hill (first publication in 1938)

Marx, K. 1962. Kritik des Gothaer Programms, in Marx, K. and Engels, F., Werke, vol. 19, Berlin, Dietz (first publication in 1890-1891)

Nyers, R. 1970. Twenty Questions and Answers, Budapest, Pannonia

Peter, GY. 1956. A gazdaságosság és jövedelmezőség jelentősége a tervgazdálkodásban (The significance of efficiency and profitability in the planned economy), Budapest, Közgazdasági és Jogi Könyvkiadó

[†] The problems raised in my paper show a certain similarity to the questions of Arrow's celebrated 'impossibility theorem'. See Arrow (1951). Arrow's two postulates are 'rationality' desiderata, and two further postulates are 'politico-ethical' ones. But Arrow's four postulates and the 5 plus 4 desiderata I have listed are only partly overlapping. Arrow proves with logical rigour the impossibility of the perfect compatibility of his four postulates. I undertake much less: I use only illustrative examples to show the inevitable conflicts of the two different sets of values. I suspect that we could go further than that. It seems to be possible to analyse the contradictions that I have just referred to in a more rigorous, axiomatic form.

