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*Economic Reforms in Eastern Europe
and Prospects for the 1980s*

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ERRATA

Correction to caption and footnote.

The colloquium in session. From left to right, Mr Armin Halle, NATO's Director of Information; Mr Alan Smith, University of London; Dr. Paul Wiedemann, City of London Polytechnic; Mr. Jean-Noël Gibault, Director of the NATO Economics Directorate; Mr. Philip Joseph, Assistant Director, NATO Economics Directorate; Professor Hans-Jürgen Wagener, Rijksuniversiteit, Groningen, The Netherlands.

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NATO: Economic Reforms in Eastern Europe and Prospects for the 1980s
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Preface

Eastern Europe: Current Reforming Trends Determine Future Economic Prospects*

James Ellis

NATO Economics Directorate

Noted academics, government officials, and businessmen gathered at NATO Headquarters in Brussels between 16–18 April for an annual Colloquium sponsored by the Economics and Information Directorates to discuss an aspect of Communist economies. This year's topic was "Economic Reforms in Eastern Europe and Prospects for the 1980s".



The opening session of the colloquium. From left to right, Mr. Armin Halle, NATO's Director of Information; Mr. Alan Smith, University of London; Dr. Paul Wiedemann, City of London Polytechnic; Mr. Rinaldo Petrignani, NATO's Deputy Secretary General; Mr. Jean-Noël Gibault, Director of the NATO Economics Directorate; Professor Hans-Jürgen Wagener, Rijksuniversiteit, Groningen, The Netherlands; Mr. Philip Joseph, Assistant Director, NATO Economics Directorate.

* We are indebted to the editors of the *NATO Review* for permission to print this paper.

In view of recent reform measures taken in each of the East European countries—Hungary, Poland, Romania, the German Democratic Republic, Czechoslovakia, and Bulgaria—the participants at the Colloquium concluded that during the 1980s, attention in the region would be directed mainly to raising labour productivity, cutting down on raw materials and energy consumption, redressing adverse foreign trade balances, and trying to satisfy ever more exigent consumer demand.

Participants at the Colloquium noted certain recurring features in Eastern Europe's current reforming efforts; a decline in the number of plan performance indicators and an extension of plan time-spans; industrial reorganization favouring larger enterprise groupings and shortened chains of command; more incentives to promote worker and management productivity and initiative; increased orientation of domestic prices to world levels; and measures to boost export competitiveness.

But despite these efforts, the prospect for the East European economies in the 1980s is for reduced economic growth. This is due to a number of factors, including declining manpower availability, increasingly scarce and expensive energy and raw materials, lack of technological innovation, and inflexibilities in management. Consequently, consumers throughout the area may grow restive as they see their real standard of living eroded.

Prospects can best be evaluated, however, by analysing current reforms on a country-by-country basis.

Recent reforming trends in *Bulgaria* have emphasized the need to improve management techniques by various reorganizations in industry and agriculture. Most often leading to the creation of larger units, these reorganizations have had the effect of increasing the powers of middle management.

At the same time, worker brigades have been given greater powers, through self-financing and more direct participation in the planning process, which itself has been simplified through the use of fewer plan performance indicators.

Changes have also been made in Bulgaria's foreign investment law to encourage more foreign firms to do business with Bulgarian concerns. By such amendments, Bulgaria hopes to deal more effectively with its severe hard-currency debt and its worsening terms of trade.

Unless the economic situation in Bulgaria deteriorates more markedly, however, the decade ahead is unlikely to see more extensive reforms, such as instituting greater price flexibility or allowing market relationships to supplement planning in determining production levels. Limited changes might be made in the agricultural sector, however, to promote Bulgaria's agricultural exports.

Since the beginning of 1979, *Romania* has effected a number of new

measures designed to give greater latitude to the large groupings of enterprises to organize and direct their own activities. Among the devices introduced are profit sharing and a system of worker participation.

Under the new system, enterprises and industrial groups, guided by workers' committees, have increased powers to draw up their own plans in consultation with the central authorities. Intended primarily to reduce production costs and eliminate waste, the reform rewards workers and enterprises alike for over-fulfilling their self-established plans.

To achieve economies of scale, industry has been concentrated increasingly into large production units, and management has been brought closer to production operations, while the functions of the ministries have correspondingly diminished. Future reforms in Romania could continue to deal with the problem of improving the quality of industrial management.

The prospects for the success of Romania's recent reforms appear to depend primarily on the strength of the party apparatus within enterprises and the degree to which President Ceausescu will be willing to relax central controls. They will also partially depend on the country's continuing efforts to improve labour skills.

New Economic Mechanism

Recent *Hungarian* reforms are related to the broad range of measures instituted in 1968 and known collectively as the "New Economic Mechanism", or NEM. These tend to decentralize economic decision making, prices and profits being relied on to motivate enterprise managers to make appropriate production choices.

NEM suffered a setback during the seventies, as a result of sharp price movements on world markets, which threatened to cause severe dislocations in the price-sensitive Hungarian economy. Consequently, the government increasingly provided subventions to maintain existing consumption and investment levels, at a cost of accumulating considerable external debt and reducing motivation toward economic efficiency.

Now Hungary is moving once again to establish domestic prices more nearly aligned with those prevailing on world markets, in the hope of forcing manufacturers of exportable goods to produce more competitive items, under the discipline of world market prices. The government is also seeking to reduce domestic consumer price subsidies, and has modified labour laws to allow management more flexibility, including by the use of labour lay-offs, in the interest of economic efficiency. While the measures should improve the functioning of the economy as a whole, they may also give rise to considerable consumer discontent in the decade ahead.

Notwithstanding these efforts, Hungary can at best look forward to

reduced economic growth, because of inevitable manpower shortages and increasing energy and raw materials costs. Moreover, because of its already high external debt, the country will no longer be so readily able to cover adverse foreign trade imbalances, as it did in the past, simply by borrowing. In short, the 1980s are likely to be a time of severe testing for the Hungarian economic reforms.

In *Czechoslovakia*, since the abortive approaches of 1968, one finds emphasis on improving planning and pricing as primary instruments of reform. For enterprises participating in a three-year experiment ending this year, net profit has become the key indicator of plan fulfillment. Longer-term planning has also become the rule; in the 1981–85 period, the Five-Year Plan is to take precedence over annual plans. Finally, prices are again to be realigned in 1981–82, after numerous adjustments in the 1970s.

Other measures to stimulate the economy, however, have fallen far short of their intended effects. Extremely high capital investment, amounting to some 30–40% of GNP, has produced only around three percent annual growth in national income, largely because funds have been inefficiently used, employed in unprofitable or military projects, or diverted to black market activities. Moreover, increasingly sophisticated computer planning seems to have had little effect on improving the functioning of the economy.

For the future, whatever reforms are undertaken will have to reckon with entrenched economic problems. One of these problems is a persisting shortage of labour. Pensioners are being encouraged to return to the labour force, but practically all sources of additional labour have been exhausted; most women are already fully employed.

Another problem is Czechoslovakia's continuing dependence on imported raw materials and energy, which account for 45% of all imports, and 40% of all energy consumed. Nuclear power-station construction, already much behind schedule, will begin to provide perceptible relief only by 1990, when it is to provide 9–10 thousand megawatts of generating capacity, or 55–60% of total 1978 capacity.

A third problem is transport shortcomings. Railways handle the bulk of Czechoslovak goods, one-third of which is solid fuels, since domestic coal is increasingly being used because of rising prices of imported oil. But Czechoslovak railroads are hampered by a lack of skilled workers, outdated equipment, and limited capacity.

Finally, Czechoslovakia must face the prospect of continuing foreign trade difficulties. Its terms of trade steadily deteriorated throughout the 1970s, as the costs of imported raw materials and energy rose more quickly than the prices received for its exports, principally machinery, which is becoming steadily less competitive on world markets. Imported energy costs will climb even more rapidly after 1984, when a special agreement with the USSR for

low-cost oil is due to terminate. Partially to offset its foreign trade difficulties, and to promote its export efficiency, Czechoslovakia may allow Western market prices to have more influence on firms exporting to the West.

Prolonged Trade Imbalance

In the *German Democratic Republic*, a prolonged trade imbalance stemming from rapid rises in the prices of imported energy and raw materials, on which the country is heavily dependent, has shaped the course of present reform efforts and will doubtless continue to do so throughout the present decade.

To promote export competitiveness by simplifying management and hastening the introduction of new technology into industry, most of the former middle-level industrial management organizations have been replaced by generally larger groups of enterprises called "combines". The new combines incorporate many formerly separate research facilities and have apparently been given broad decision-making powers concerning the organization of production, as well as some foreign trade rights. In addition to industrial reorganization, new planning indices have been introduced and prices systematically raised on raw materials in an effort to reduce consumption.

Consumer prices, on the other hand, after having remained constant for most of the decade, were finally raised in 1979 on higher quality consumer goods, partially to offset growing state subsidies. Although there is little latitude for raising consumer prices much further without setting off widespread discontent, the 1980s may well see additional limited price increases if the government can offer convincing improvements in the range and quality of consumer goods.

Certainly, however, the 1980s will be a time of continuing economic strain for the GDR. Because of the mounting burden of foreign trade imbalances, there will be increasing pressures to improve export competitiveness. On the other hand, to remedy the GDR's continued uneconomic use of manpower and other resources, ways will have to be found to improve management, and arrest probably declining economic growth. In any case, domestic supply problems are likely to become more severe because of the increased need to export.

In short, the GDR will have to devote the bulk of its efforts in the decade ahead to improving the standard of living, promoting economic growth and efficiency, and at the same time balancing the State budget and international trade accounts.

Poland followed a policy throughout the seventies of massive capital investments, including much imported technology and equipment, to promote

rapid economic growth. The period immediately ahead is expected to see a consolidation of these investments, a building-up of the skilled labour force, import restraints, and slowing growth.

With a probable decline in real living standards, the Polish population may become restive. To alleviate the situation, enterprises may continue to grant irregular wage increases, which at the same time could further boost the rapidly rising cost of living.

Poland's room for manœuvre in foreign trade will continue to be limited, hampering the country's possibilities for economic growth or restructuring the economy. Ironically, Poland may find itself in the position of not being able to afford the imports of raw materials needed to expand industrial production and exports for convertible currency.

In view of these imminent difficulties, the Polish leadership may well be inclined to undertake extensive reform measures beginning around 1983. These could include planning and organizational changes, revision of the management and incentive systems, and the extension of the role played by financial and pricing mechanisms. Already, the government has undertaken limited reforms in the area of foreign trade by giving exporting enterprises more liberal access to imports of machinery and raw materials.

In the longer term, Poland's possibilities for expanded economic growth may increase about the middle of this decade, when some of its current external debt should diminish, and when the productive effects of the investments of the seventies should begin to make themselves felt. Hence improved economic performance could obviate pressures toward further reform.

Common Approaches

For Eastern Europe as a whole, certain common approaches appear in current reform efforts. They include a tendency toward decentralization of decision making, a general increase in the financial autonomy of individual enterprises or associations of enterprises, and a restructuring of price systems to reflect more realistically prevailing conditions of scarcity and demand.

A further similarity is that growth in personal consumption has typically been lower than the rate of growth of national income, reflecting the fact that the consumer has often taken second place in policies designed to bolster national economic expansion. Nonetheless, despite continuing generally poor quality in available consumer goods, there has been a marked improvement in real consumption in Eastern Europe since 1965. At the same time, pressures have accumulated for even greater consumption, stemming from the fact that real wages have risen faster than the supply of consumer goods.

A common goal of reform efforts is to compensate for increasingly costly

energy supplies. Heavily dependent on coal for the generation of electrical power, Eastern Europe will nonetheless continue to require minimal quantities of oil for transportation and essential industrial processes; total needs may amount to 145 million tonnes by 1985. Since Soviet oil exports to the area will by then probably come to no more than 90 million tonnes at best, Eastern Europe will have to find about one-third of its supplies elsewhere, at rapidly rising prices. In short, Eastern Europe's need for oil from non-Soviet sources may trigger complicated deals and new types of trade and payments arrangements.

In any case, Eastern Europe will probably enter into a period of diminishing trade growth with the West in the 1980s, when total trade could grow by 4% at best. Even then growth will be restricted primarily to exports; imports will probably consist of goods designed to save energy or raw materials, or to boost exports.

A number of additional factors are expected to influence the course of East European economic reforms in the 1980s. They include each country's transport situation, world financial developments, and the economic and political climate in the West.

In the field of transport, road traffic is steadily gaining in importance in all the East European countries, especially for short-haul traffic. At the same time railroad rates are being perceptibly raised, although transport costs are still given relatively little importance in the evaluation of optimum enterprise production.

With the increasing burden of foreign debt and energy constraints, the East European countries may be forced again in the 1980s to attempt the market-oriented foreign trade reforms that they tried in the 1970s. Eastern Europe has already probably reached about the limit of its hard-currency borrowing abilities; nonetheless, it should still have access to Western money markets to promote its exports and to ease its liquidity problems because of its established banking relationships and the relative political instability existing elsewhere in the world.

In the final analysis, favourable economic relations with the West are needed to allow the East European countries to consolidate their reform policies. East European investment must increasingly contend with Western prices for its rational structuring because of the costs of imported Western materials and the prices of necessary exports. Hence, many export-linked East European economic reforms must increasingly take account of Western market conditions.

Synopses of Papers

Economic Reforms in Bulgaria: Coping with “the *kj* problem”

Paul Wiedemann

Evaluated by the traditional criterion of market orientation, Bulgaria is judged to have exhibited relatively little in the area of economic reforms. This paper argues that the major development in Bulgaria has been in the direction of modifying the traditional centralized planning model and developing what we call the streamlined centralized system with decomposition (SCSD). The motivating factor behind the introduction of the SCSD model was the need to solve “the *kj* problem”: the problem of attempting to control centrally too many production units and to issue centrally too many (not completely consistent) centralized commands. The key feature of the SCSD planning model that recommended it to the central planners was that it solves the horizontally reduced problem (i.e. reduces the j' production units to j units, where $j = j'/n$) and the vertically reduced problem (of reducing the k' central controls to k , where $k = k'/m$) *without* sacrificing central control of the economy. The paper explains the organizational changes that have taken place in Bulgaria since the mid-1960s as part of the introduction of the SCSD planning model and relates the development of the SCSD model to the process of horizontal and vertical integration and to the changes in the incentives system.

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Romanian Economic Reforms

Alan H. Smith

Romanian economic “reforms” were first approved in 1967. The Reform Directives contained elements of compromise between a school of thought that favoured the use of a reduced number of indices based on profits and value added as a criteria of enterprise operation, coupled with financial measures of control and a school which favoured a more elaborate system of control indicators. A three-tier system of economic administration was implemented with the establishment of industrial centrals as an intermediary between ministries and enterprises. The initial stages of reform implementation were marked by factional disputes concerning both economic issues and Party control of the economy. By mid-1974 a highly centralized

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system of economic administration had emerged with strong Party control over the economy and a considerably reduced number of industrial centrals largely fulfilling the functions of the Ministry general directorates. A corresponding feature has been the growth in enterprise size with reductions in their number in 1973 and 1977. A high rate of investment (over 30% of GNP) concentrated in heavy industry was maintained.

Economic problems since 1974, notably the excessive consumption of imported energy and raw materials, partly due to the use of gross output as an enterprise indicator and signs of public discontent at low living standards (culminating in the Jiu Valley disturbances in 1977) may have been instrumental in bringing about a new series of reforms announced in March 1978, with gross output replaced by net output and material incentives linked to profits, and the role of the workers' councils enhanced. This should probably be interpreted as a shift of emphasis in the reforms rather than the development of Yugoslav-type workers' management. However, the increasing enterprise size, the shift of the tax burden from individuals to enterprise and increased enterprise provision of social expenditure do mean that a qualitatively different form of economy (socialist corporation subject to party control?) could emerge in the future.

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Czechoslovakia: Economic Reforms

Vaclav Holesovsky

A historical survey of different types of national economic management in Czechoslovakia, spanning the last thirty-odd years, would reveal roughly six distinct periods. The first one (1947–52) may be considered as a prelude to the introduction of the “classic” form of central command planning in the second period (1953–57), whereupon we observe two cycles, each consisting of two phases, one of a decentralizing reform, the other of a recentralizing anti-reform and restoration: 1958–62/63, first reform; 1962/63–66, recentralization; 1967–69, second reform, 1970 and after, recentralization. The natural question to ask is whether a third reform–restoration cycle is in the offing, and, if so, what basic type of reform is to be expected this time. Precedents offer a choice between some kind of “tame” or “half-way house” reform of the 1958 type, or a radical, market-oriented reform of the 1967 type (or of the Hungarian post-1968 type). A third possibility is a reform of the recentralization process in the sense of an attempt to make it more efficient and effective.

To undertake a reasonably reliable prognosis, it is important to realize that the restoration periods never meant a complete return to the status quo ante, and neither reform represented a true discontinuity with the past, although

the 1967 reform might have developed in that direction if it had been allowed to run its course. As for the current state of economic planning in Czechoslovakia, it is not even clear whether it can be described in an unequivocal way as one or another type of planning. It is difficult to distinguish between purely formal procedures “on the books” and operational features. As a new set of changes is being discussed and contemplated, it appears that the economy has been operating under a very partial system of *ad hoc* input and imports rationing measures, governed by the latest priorities in the export programmes and export-related investments. The rest of the economy seems to be operating on the basis of inertia and simple extrapolation, to say nothing of the multicoloured (black, grey, pink—cf. Katsenelinbogen’s classification) markets of the “underground” or “second” economy.

Thus changes, which have been under preparation lately, reflect the desire to make central allocation more effective by improved computerized information gathering and a more systematic use of mathematical input–output and macromodels in planning practice, as well as devolution of allocation tasks to the level of “trusts” (VHJ), which might be appropriately dubbed “decentralizing centralization”.

The economy has been growing steadily, with occasional deceleration, throughout the latest restoration period following 1970. There was no repetition of the 1962/63 slump which gave an impetus to the preparation of fundamental market-oriented reforms. Hence, it may seem reasonable to ask whether, following the 1962/63 slump, the need for a fundamental revamping of the economic system had not been oversold. (As one might put it, with Brecht, “es geht auch anders, doch so geht es auch.”)

There is little doubt the economy has “worked” throughout the restoration period. In the period 1970–78, real GNP rose at about 3.5% p.a., and real GNP per capita at about 2.5% p.a. However, if one evaluates the performance in light of comparative standards, it turns out that fundamental features of the economy which the 1967 reforms set themselves as task to change and improve, are still there. These features find their summary expression in the differential growth rates of the major components of final uses and in the development of total-factor productivity, and they affect economic efficiency negatively, both on technical-productive and social-welfare grounds. These simple but fundamental features consist in the low growth rate of personal consumption compared to total output (hence, progressive decline of the share of consumption in the GNP), and in the extraordinarily high and increasing share of investments relative to the attained growth rates of the GNP.

The investment-share phenomenon is a puzzling one, and deserves close

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attention. It seems *prima facie* inconsistent with the rate of growth of the labour force (especially in view of the low rate of retirement of old equipment), unless one accepts at face value unrealistically great increases in the technical capital/labour ratio. The frequent explanation, based on the statistical calculation of the “residual”, which purports to reveal a low rate of improvement in the level of technical innovation, may not capture the whole truth. It should be supplemented by the hypothesis that portions of the accumulated capital stock have periodically shifted into the category of idle or partially idle equipment, without being officially retired, due to repeated discontinuous changes in export demand requiring discontinuous waves of industrial re-equipment.

Underneath these overall considerations there has been a steady though moderate increase in measurable living standards, progressive equalization of living standards between rural and urban area, as well as between Slovakia and the Czech parts of the country.

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GDR: Industrial Reforms

Doris Cornelsen

The GDR's economic problems will become more serious during the 1980s: the increasing prices for energy and raw materials will further deteriorate the terms of trade for the GDR which is poor in raw materials. Similar developments in recent years led to substantial trade balance deficits to indebtedness and considerable interest charges. Increasing exports will therefore be a task of primary importance in the years to come. The foreign trade problems will also have an impact on the production and distribution of goods. The increased export effort will compel the GDR to be careful with regard to domestic investments and this will weaken the growth potential. Shortages of consumer goods—also a consequence of the export effort—will reduce the incentive for good performances.

The decisive initiative to accelerate growth is the increase of productivity. Attempts are being made in the GDR at present to reach a higher efficiency of the production factors through organizational changes (setting up of combines).

Generally the following is expected of the combines:

- acceleration of scientific–technical progress by including the research facilities in the combines;
- higher productivity by improving the production organization;
- increase of exports by direct contact with world markets.

A further basic change is being made in the price policy at the consumer level. Up to now the principle of constant consumer prices was one of the most important economic policy principles of the GDR, still firmly established, for instance, in the law on the Five-Year Plan 1976–80. Changes of world market prices since 1973, which resulted in higher production costs also in the GDR, have been kept away from the consumer by subsidies.

At the end of 1979 the principle of stable consumer prices was limited to the “basic requirement”, presumably with the aim of taking into account price increases on world markets of limiting domestic demand in favour of exports, and, perhaps, even of winning revenue for the state budget.

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**La Réforme Economique Hongroise:
Analyse et Evolution, 1968–1978**

Xavier Richet

I. La mise en place et le fonctionnement de la planification centralisée.

Les caractéristiques du modèle de la planification centralisé.

La politique d’industrialisation durant les premiers plans quinquennaux.

Les contradictions du modèle centralisé et l’échec de l’industrialisation forcée.

Les réformes partielles et successives du système de gestion:

- De la planification physique à la planification en valeur.
- Les politiques agricoles.
- Les réformes partielles du système des prix.

II. Anatomie de la réforme.

Des modifications partielles des politiques économiques à l’idée de la réforme d’ensemble du système de gestion: 1953–66.

Le contenu de la réforme de 1968:

- Le système de prix et la nouvelle politique de prix.
- La mise en place des régulateurs financiers et des régulateurs des salaires.
- Le degré de décentralisation des décisions et le rôle des entreprises.
- Les multiplicateurs du commerce extérieur.

III. La mise en oeuvre et la dynamique du N.M.E.

Le domaine d’application de la réforme.

La politique économique de la réforme.

La structure institutionnelle de la planification.

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L'insertion de l'économie hongroise sur les marchés socialistes et capitalistes.

Les formes du marchandage dans la planification décentralisée.

IV. Conclusion.

La spécificité de la réforme hongroise.

La politique économique hongroise à la croisée des chemins.

La réforme des prix de 1980.

Le "modèle hongrois": une expérience isolée?

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Reform of the System of Economic Management in Poland, 1973-79

P. T. Wanless

Reforms were intended as a move towards a more decentralized, market-orientated socialist economy.

The objectives of reforms were to improve plan implementation, increase the flexibility and adaptability of production to customer's needs, and to sustain, and, if possible, improve growth performance through increased efficiency, exports, and new technology. A number of new policy instruments were introduced to achieve these ends. These included: new synthetic measures of economic performance; a new incentive system which linked remuneration to the new indicators; taxes on labour and capital to provide shadow prices to stimulate more efficient use of these resources; greater opportunities for producers to control the proceeds of economic activity; and a set of unified principles of product pricing.

However, the reforms operated under a number of constraints. The reforms were introduced at a time when the economy was moving into profound disequilibrium. No changes were made in the system of central planning, or in the administrative system whereby producers were subordinate to the economic ministries. In these important respects, the new management system went unrecognized. No attempts were made to improve the competitiveness of producers or reduce monopoly power. Finally, for reasons of political expediency, the reforms were only partially implemented and the important price reforms were abandoned.

Even the parts of the system introduced were not trouble-free. Problems in the system of wage determination led to wages growing unacceptably fast. These developments, combined with other sources of inflationary pressure, led to the system being suspended in 1976, and then re-introduced in an allegedly "modified" form in 1977. Essentially, however, the operation of the modified system obliterated the reforms, and the system reverted to a highly centralized system of directive implementation of the plan.

The whole attempt at reform may be criticized on three grounds. Firstly, reforms were introduced at an inappropriate time, when the authorities lacked the political strength to implement them in full, and when the economy was already moving into disequilibrium. Secondly, there were weaknesses in the administration of the system. The authorities lacked confidence in their instruments, and continually tinkered with the system, leading to uncertainty of the part of producers. Thirdly, there was inconsistency over the objectives the system was intended to promote. Within a short space of time, the empirical objectives were subordinated to the control of inflation.

The 1973 experiment reform is now over. The present administration promises further reforms, but it remains to be seen whether effective reforms will emerge.

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Economic Reforms and the Consumer in Eastern Europe

Cameron Hudson

This paper examines the impact on the consumer in Eastern Europe of the various economic reforms instituted since the mid-1960s. The motivations, objectives, and consequences of these reforms are briefly described and various data are provided as indicators of changes in consumption levels in Eastern Europe.

It is contended that although there was a significant reallocation of resources toward the consumer in the late 1960s and early 1970s, the economic reforms were not designed to achieve this purpose, and in themselves have not resulted in it. Rather, it is argued that, in general, economic policy-makers in Eastern Europe have maintained a preference for maximizing (albeit declining) growth rates through emphasizing the development of the producer goods and raw materials sectors. In this context consumption has been treated as a necessary cost incurred in pursuing these preferences and as a most negotiable element when economic barriers are encountered.

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Economic Reforms in Bulgaria and Romania: Prospects for the 1980s

Elizabeth M. Clayton

During the past 25 years, Bulgaria and Romania have achieved some considerable goals by following the Soviet strategy and model for economic development. Living standards have improved, industry has been introduced into traditional economies, and production has diversified. Nevertheless, the

recent reforms represent a shift from this strategy and towards an increasing industrialization of the remaining traditional sector—agriculture. The reforms propose to modernize this sector and increase its trade.

The prospects for success of these reforms, which constitute a change in strategy, depend on positive answers to three major questions:

- (1) Are the plans feasible and practical?
- (2) Are the populations capable of adapting to the new environment?
- (3) Are the reforms integrated into the plans for the rest of the domestic economy and in international trade?

The paper discusses the barriers to a positive answer to each of these questions.

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Czechoslovakia: Economic Prospects for the 1980s

Franz-Lothar Altmann

After V. Hulá's report to the CC plenum (10, 11 December 1979) it is now officially stated in Czechoslovakia that the key economic growth targets of the sixth Five-Year Plan (1976–80) will not be fulfilled. At the end of the fourth year of the current Five-Year Plan national income has increased by only 17.2% against 1975 instead of a planned 21.6%. Even if the planned 3.7% increase of national income can be achieved in 1980, only 75% of the original Five-Year Plan target can be achieved.

Most of the reasons for the slow down of economic growth must be considered to be of longer-lasting nature. Czechoslovakia is suffering severely from a fast-growing deterioration in foreign trade terms, both with the West and the USSR, and it is not possible to provide foreign trade organizations with the required quantity and quality of exportable goods, especially machinery. Half-finished products and even consumer goods have had to be increasingly exported to pay for urgently needed imports. Continuing problems can be expected in the energy sector where Czechoslovakia is now forced to rely more on her own resources, i.e. on brown coal and nuclear energy. Additional investments will be directed into these areas causing restrictions in other parts of the economy and tensions in different branches of heavy machinery and construction, since investment programmes are needed elsewhere, too, e.g. in transportation and for the modernization of the engineering industry (export capacities).

Economic austerity will be the main characteristic of the eighties: energy conservation and raw material savings are expected from the enterprises, but consumers, too, will feel the difficulties when imports of consumer goods from the West will be limited, as is already scheduled for 1980.

In the eighties an even more reduced economic growth than in the second half of the seventies will be accompanied by tighter controls of the firms and by attempts on the part of the central authority to improve managerial work. After 3 years of the “complex experiment” a further reform attempt will start in 1981. Although some step-by-step changes in the system of national planning, in the sphere of incentives and in the structuring of wholesale prices, are on the programme, one cannot speak of a fundamental economic reform similar to the previous one of 1967/68.

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GDR: Prospects for the 1980s

Herwig E. Haase

The simultaneous achievement of the macro-economic goals of stable economic growth, full employment, price stability, and external economic equilibrium during the 1970s, as well as the GDR’s “programme of full employment, national prosperity, growth, and stability” for the 1980s represent the *challenge* of the GDR economy.

Should the *slowing down of economic growth* to an annual rate of less than 2% of the Gross National Product continue, macro-economic objectives might be reformulated. Optimum use of economic growth might replace maximal growth as the objective.

The extremely high 55% participation rate in employment indicates *continuing overemployment*. It is interesting to note that considerably more men than women are expected to enter the work force between now and 1990. It appears that the planned reduction of the standard *work week* to 40 hours (and, in certain cases, to 36 or 38 hours) will be possible simply by reducing time (slogan: “Fewer workers produce more”).

Official increases in prices for consumer goods, primarily for “luxury” products, will probably limit real wages to modest increases.

Even though the GDR is not significantly lacking in raw materials, *external economic burdens* will continue to increase. The GDR could find it especially difficult to secure necessary petroleum supplies and to reduce its almost 9 billion dollar debt to the West.

Consumption of materials, raw materials, and energy is wasteful. Because of this, adequate supplies of raw materials and energy in the future appear to be jeopardized by *poor input efficiency*.

The “*technological gap*” will probably continue to widen due to inefficient industrial research and because researchers and managers are too risk-averse.

A clearly excessive stock of money held by the population as well as failures to co-ordinate developments in the production and financial spheres suggest *monetary instability*, which could easily result in a *financial crisis*.

In good part due to an increased need to export, domestic supply problems will probably become even more severe.

Even though most of these difficulties are due to factors inherent in the economic system, apparently no economic reforms are being planned. As far as the system of managing the economy is concerned, norms for performance will probably increase in significance. Extensive personnel changes are likely to occur in the Politbureau and in the GDR Council of Ministers.

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The Hungarian Economy Prospects for the 1980s

Michael Marrese

I. Introduction

Purpose.

Outline.

II. Hungary's goals for the 1980s may be described as seeking solutions to a set of pressing problems. In Section II these problems are presented and their seriousness is demonstrated.

Acceleration of productivity growth

Dissatisfaction with productivity growth during 1970s.

Demographic patterns indicate almost zero labour force growth during 1980s.

Restructuring of Hungary's production structure so as to improve Hungary's terms of trade.

Achieve greater speed and flexibility in decision-making on the national and ministerial levels.

Creating incentives which would encourage enterprise managers to attempt to maximize profits.

III. Tools available for solving these problems (must be used as a coherent package).

Creation of a price system which will reflect scarcity values.

Elimination of differences among relative world market prices, domestic consumer prices and domestic producer prices bidding for investment prices.

Creation of an incentive system which will permit decentralization of decision-making.

Allowing bankruptcy to occur.

Permitting managers to reduce an enterprise's labour force more easily.

Tolerating a greater differentiation in the officially measurable distribution of income.

- Creation of greater competition
 - Reducing the oligopolistic nature of the domestic production structure.
 - Reducing import and export subsidies while also lowering tariff barriers.
 - Combating the detrimental effects of the second economy.
 - Importing technology
- IV. Constraints which must be honored during the 1980s
 - Integration within the CMEA
 - Maintaining an “acceptable” standard of living for the population
 - Avoiding major institutional changes (the system of branch ministries will remain intact).
- V. External factors which may influence Hungary’s ability to reach her goals.
 - USA—USSR relations.
 - World market prices of energy and raw materials 1980s—a decade of inflation.
- VI. Conclusions.

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Prospects for the Polish Economy in the 1980s

Peter Brodersen

The “Guidelines” adopted by the Central Committee in October 1979 stipulate a 14–18% rise in national income, a 20–24% rise in industrial production and a 12–13% rise in final agricultural production from 1980 to 1985. In order to reach those modest targets the leadership will have to deal with the problem of slow growth in manpower, persistent problems in the transport and energy sectors, the burden of servicing the hard currency dept, etc.

Growth of around 30% is to be reached in the chemical and the electro-engineering industries, while growth will only be 20% in most other branches over the 1981–85 period. A 24–38% rise in electricity output will diminish some, but not all, of the present shortage.

Crop yields will barely surpass those of the early seventies and livestock will grow only 1.5–3% annually. The implementation of a pension scheme for private farmers in the early eighties could bring more vigour to agriculture though supplies of machinery and other inputs will still be a limiting factor.

The present share of investment in distributed national income of less than 20% will be maintained in the first half of the eighties. Only a few big projects will be started. Priority will be given to consumer goods, housing, energy and raw materials, transport and export production in general.

The present price policy with hidden and creeping inflation will probably continue, thus eliminating most of the growth in nominal incomes. Real wages are to rise only 9–11% over the Five-Year Period, with total per capita real incomes rising 10–12%. The present shortage of food supplies will not be eliminated.

Co-operation with socialist countries and especially with the Soviet Union will be intensified in some industrial branches, but the CMEA integration schemes will not necessarily lead to any substantial rise in total trade. Growth in energy imports from the Soviet Union will level off in 1981–85 and terms of trade will deteriorate.

Plans call for a balance in hard-currency trade already in 1980, with hard-currency exports rising 10% and imports 2% annually. Although such prognoses seem somewhat sanguine a \$1–\$2 billion surplus in the mid-eighties cannot be ruled out, but the servicing of the \$17 billion debt will cost around \$5 billion annually at least through the mid-eighties. Curtailing fodder import and expanding exports of the food-processing industries could bring a balance in agricultural trade in 1985. Coal export may rise above the present 40 m tons, but the overall balance in energy trade will certainly become negative.

The Central Committee “Guidelines” stress the need to expand the range, scope, and efficiency of central planning, and the need for better plan discipline. At the same time the advantages of building incentives into the accounting, pricing and financial systems, and the possibility of reducing the number of decision levels, are recognized, but decentralization schemes seem to be in the offing only in foreign trade and small-scale industry. Even if the leadership now seems to recognize the need for reform discussions, the outcome will not necessarily be a system that makes the various decentralization measures work together.

In the second half of the eighties manpower resources will stagnate. In spite of the cautious investment policy the capital stock will have risen substantially by 1985, but relatively slower than in the 1976–80 period. The trend in fundamental growth factors thus point to a slowing down of growth rates in the late eighties, but development of the growth potential in agriculture and a solving of problems in the transport and energy sectors may well produce higher growth rates.

An improvement of Poland’s creditworthiness by 1985 could induce the leadership to resume large-scale imports of Western capital goods. Anyway the investment scene of the late eighties will be dominated by the Vistula project, projects to develop energy (brown coal and atomic energy), and maybe projects to transport energy in transit from East to West.

A real improvement in living standards will depend much on agriculture, but the stagnating population of working age will have to share the cake with

a growing number of pensioners. Growth rates and consumer welfare in the late eighties will also depend on the leadership's ability to substitute the present short-term approach with long-term problem solutions at the beginning of the decade.

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The Effects of Energy Development on East European Economic Prospects

Tony Scanlan

Economic prospects depend heavily upon imported energy, especially oil. Oil imports have risen from 15 m tons in 1965 to 100 m tons. Trade balances and macro-economic factors are likely to reveal more energy constraints upon the whole economy rather than at the micro-economic sector analysis level, where constraints other than energy might be more critical.

The extraordinarily low percentage of oil in the energy balance will be emphasized, despite the foregoing rise in oil import dependency.

Economic growth rates and proportionate change in the use of each source of *primary* energy will be reviewed for The Six collectively and individually.

Current indigenous production trends indicate a deterioration in oil and gas self-sufficiency. All the countries are being forced back on to solid fuels. Primary electricity is unlikely to make a significant contribution in the next 5 years because of development "lead" times.

Individual national energy balances will be projected by assuming a total primary energy demand growth of circa 3% p.a. for the region overall, and on the simple hypothesis of maintaining the current mix of primary energy sources. "Target" import requirements will be derived.

The prospects for acquiring the "target" imports will be assessed by a short review of import prospects: (a) from USSR (b) from non-CMEA sources. The oil situation will be extremely tight not only in *price* expectancy but in *volume*.

Based on the foregoing hypothesis, energy supply will appear feasible but also a limiting factor on the energy balance and potentially on the rate of economic growth. The potential of energy *demand* to relieve the constraint on economic development by higher efficiency in use or structural changes in primary energy use will be reviewed.

External trade prospects outside CMEA with the twin aims of acquiring energy and raising the total level of trade may indicate new directions for The Six with OPEC and the developing world.

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The Role of Banking and Finance in East European Reforms

Donald W. Green

During the decade of the 1960s, the most active period of economic reform in Eastern Europe, many economists recognized that any significant reform must involve the partial monetarization of the centrally planned economy. Monetarization and the decentralization of decision making has to be coordinated, and the monetary function in the system would have to be broadened from strictly accounting and control. Many of the difficulties experienced during the 1970s stemmed from the failure of the political leaders and economic officials to understand this dimension of the reform process. In some cases, reforms in managerial incentives were ineffective since the monetary medium of commerce was restricted. In other cases, too much was expected from extensive financial reform without a parallel decentralization of economic authority over resources.

For the purpose of analysis, one may divide the role of banking in Eastern Europe into four broad areas of responsibility: (1) investment decisions; (2) trade and credit relations in the enterprise sector; (3) international transactions and finance; and (4) banking relations with the household sector. During the past decade, there was only limited progress toward monetarization in the first two areas of investment and enterprise banking. It is precisely in those areas where economic reform most directly challenges the established authority structure of planning and ministerial power. There have been more significant changes in the areas of international and household banking during the past decade, with these changes in each area being associated with the rapid accumulation of financial obligations by the State.

During the 1980s, the pace of economic reform in Eastern Europe is expected to be more rapid than in the 1970s. Such reforms may be less dramatic than those of the 1960s but will be better co-ordinated with further monetarization of the economy. As the more industrialized CMEA economies move away from the norm of full-capacity utilization, greater concern will be given to transaction flexibility, inventory management, and demand responsiveness. This requires an expanded role for banking and finance within the enterprise sector, a role which may even spill over into investment decisions. At the same time, there are certain to be further developments in the areas of international and household banking, with East European bankers building upon the expertise accumulated during the past decade.

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Trade and Integration

Heinrich Machowski

Economic growth diminished noticeably in East European countries during the second half of the 1970s, especially in the six smaller COMECON member countries. In none of these countries will the 1976–80 Five-Year Plan target of an increase in GNP of 6.3% per year be met. This trend is expected to continue during the 1980s.

The situation *vis-a-vis* Western creditors requires that overall goods production must grow more rapidly than domestic consumption. Moreover, higher prices for Soviet raw materials and oil will have to be met out of export surpluses. Imports are likely to grow only moderately, with emphasis on goods and technologies designed to save energy and raw materials.

New long-term target programmes and intensification of long-term cooperation and coordination with the USSR will increase the dependence of the smaller COMECON countries on the Soviet economy, although there appear to be serious obstacles to the realization of these plans.

The deterioration in the development of East-West trade consequent on the Soviet invasion of Afghanistan would have a damaging effect on the East-West trade relations of the smaller COMECON countries. Moreover, the fundamental political decision of these countries to become involved in the worldwide international division of labour—one of the most important bases of the policy of *détente*—would be gravely damaged by such an embargo.

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Les Transports dans les Reformes Economiques en Europe de l'Est

Krystyna Szymkiewicz

Dans quelle mesure le domaine des transports est-il (ou non) affecté par les réformes du système de planification et de gestion? S'agit-il d'un secteur qui "subit" ou qui, au contraire, dicte certaines modifications de structure ou de système?

Une première partie, statistique, de l'étude décrit l'évolution de l'infrastructure des transports des pays du Comecon face à l'accroissement de la production et des échanges extérieurs. On trouve ici la comparaison des principaux indices habituellement utilisés pour caractériser l'état de l'infrastructure et les performances économiques des transports: la longueur et la densité du réseau, l'importance et les caractéristiques du tonnage transporté, etc. Les chiffres, concernant d'une part les transports internes et, d'autre part, les transports internationaux permettent de situer la spécificité de chacun d'eux et de suggérer les problèmes qui peuvent se poser pour les membres du Comecon dans l'articulation de ces deux sphères d'activité.

La deuxième partie souligne les interdépendances des transports et du reste de l'économie à l'intérieur de différents pays pris séparément. On développe ici les objectifs des plans et les méthodes de la planification et de l'exécution des plans de transport.

Une troisième partie analyse l'aspect intégrationniste des transports au sein du Comecon pris dans son ensemble: bilan de la coopération; étude des projets communautaires à long terme, formulés tout d'abord dans le Programme complexe de 1971 et ensuite dans le programme finalisé adopté lors de la 33^{ème} Session du Comecon en 1979.

La conclusion débouche sur une question: la politique commune dans le domaine des transports vise-t-elle uniquement l'intégration économique au sein du Comecon ou favorise-t-elle l'ouverture sur le monde extérieur?

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The Implications of Economic Reforms in Eastern Europe for the Future of East-West Relations

Giuseppe Schiavone

The new wave of economic and institutional reforms in the USSR and Eastern Europe will doubtless affect the external trade systems of these countries and consequently the future prospects for East-West relations.

Despite the sharp differences that exist in the concerns of the Soviet Union and Eastern Europe, it would appear that throughout the region trade policies crucial to future economic performance are becoming more and more selective. In most of these countries there seems to be a good deal of scope for extending reform policies by adapting institutions and mechanisms so as to facilitate trade and economic relations with the West. Yet there appears to be no evidence that policy-makers are prepared to introduce any far-reaching reform which might impair the national planning of foreign trade.

The exploration of new forms of inter-governmental and inter-firm co-operation with the West is likely to involve to some extent those production areas already covered by long term integration arrangements within the CMEA framework.

On the Eastern side, there exists a good capacity for expanding westward flows of goods; of course, further borrowings in Western capital markets will be essential.

Considering the important function of Eastern Europe in the continental and world balance of forces, an effort should be made by Western countries to play a more active role in the region with a view to encourage reformism in domestic matters and more independent postures in foreign relations. The successful conclusion of an EEC-CMEA agreement on the guidelines of

mutual relations should provide an effective framework for a two-way exchange of goods, services, and technology, and generate goodwill for the coming years. It does not seem that such an agreement will automatically and necessarily strengthen the Soviet economic and political influence in Eastern Europe.

Economic Reform in Bulgaria: Coping with “the *kj* Problem”

Paul Wiedemann

London, England

Introduction

It is now a decade and a half since the reform movement commenced in Eastern Europe and the Soviet Union, and fully a quarter century since the beginning of the post-Stalinist discussion of the prospect for change in the function of the centrally planned systems (see Brus, 1979). Due more to the level of its economic development than to any other single factor, Bulgaria was one of the countries for whom change only began with the post-1965 reforms. But because of the general view that Bulgaria has carried out little in the way of economic reform, even these changes have not been a subject of great interest in the West.

This paper will first discuss the standard ways of classifying economic reforms and will review developments in Bulgarian reforms in order to try and place Bulgaria within the traditional classification. Since the key institutional change in the post-reform period in Bulgaria—and one that is fundamental to the reformed planning model which we will call the Streamlined Centralized System with Decomposition (SCSD)—was the implementation of a process of horizontal and vertical integration, we next turn to a discussion of this programme.

With this background, the paper then introduces and discusses “the *kj* problem”—the problem of too many central controls (the *k*'s) and too many production units (the *j*'s) to control—attempts at the solution to which (in our view) hold the key to interpreting the SCSD model and institutional and planning changes in general in Bulgaria—as well as in many other East European countries—since the mid-1960s.

In this discussion the streamlined centralized system with decomposition will be outlined, together with the way in which it solves “the horizontally reduced problem” and “the vertically reduced problem”, and therefore is seen to work towards the solution of the underlying pressures that called forth the demand for reform. Finally, the results of the Bulgarian economy since

1976 will be discussed in an attempt to determine whether the application of the SCSD model in Bulgaria can be judged a success.

Economic Reform

An attempt at exploring economic reform in Bulgaria (1979) could be based on Bornstein's distinction between thorough-going systemic changes designed to fundamentally change one or more elements of the planned system and incremental changes to reduce the friction of the system. In his classification, Bulgaria's movements towards—and then retreat from—reform in the latter 1960s clearly belongs in the latter category. But at the same time Bornstein would most probably not go so far as to make such an intemperate statement as to call Bulgaria's partial reform "a bungling half-measure reform" as Feiwel (1979) recently did.

We prefer, however, to look at the givens that the central planners in Bulgaria and elsewhere in Eastern Europe faced and then to consider the alternatives. The fundamental economic facts were two: that the growth and development of the economies of Eastern Europe and the Soviet Union had placed very great strains on the traditional centralized system; and that it was impossible, not only at the moment but also in the foreseeable future, for computer technology to allow the development of a fully disaggregated central plan.

In the face of these realities there were two real alternatives—clearly stated at least as early as 1969 in a classic ECE study (1969) and a decade later just restated by Nove (1979): either a greater role for the market mechanism or the introduction of a streamlined centralized system; or a mix of the two.

As we see the reform movement and institutional developments in Eastern Europe since 1965, the link between these two groups of reform measures is very loose in the sense that the two can be introduced together as part of a large reform package, be introduced sequentially or either of the two could be introduced separately. As the papers presented to this Colloquium clearly show, East European experience since 1965 exhibits examples of most if not of all these variants.

Economic Reform in Bulgaria

In Bulgaria we saw a reform movement born in (December) 1965 (*Rabotnichesko Delo*, 4 Dec. 1965), though "preliminary experiments" preceding the official publication of the reform documents have been traced back to several selected enterprises in 1963 (ECE, 1966, 62). The new system as outlined had many of the standard features of market-type reforms,

including increased independence for enterprises and a marked reduction in the mandatory (central) indicators.

The reform movement did not, however, survive its infancy, and, after being carried out in a "quiet atmosphere" and at a "slow pace" (ECE, 1968, 66), was highly criticized by the top Party hierarchy in 1968 and its most important features abandoned. This has led to the view of most if not all commentators that Bulgaria stands out as a country which not only carried out no thorough-going reform, but also tinkered very little with the traditional centralized system itself. Such a view is supported by the fact that, while it was intended that the market-reform-type system would encompass all branches of the economy, key sectors of the economy (such as metallurgy, chemistry, and energy) were never included, as well as by the fact that, while as part of the reform the scope and number of mandatory plan indicators (in the form of detailed production assignments in physical terms) were initially narrowed (ECE, 1966, 62), these were increased again four years later.

At the same time that the market-reform-type system was being introduced in 1965—indeed as part of the reform itself—horizontally and vertically integrated large economic organizations (Dürzhavno Stopanstvo Obedinenie, DSOs) were created. The experimental DSOs were operated throughout the period of the attempts at market-type reforms, and at the same time as these reforms were enduring their last attacks the DSOs were officially created (November 1968) as horizontally integrated management units. With the DSOs, the SCSD that is the basis of the current planning model as applied in Bulgaria, was born.

This SCSD was a change in management techniques designed to increase the planning efficiency of the former traditional centralized system while preserving the central planners' traditional goals and objectives. The former system was no longer adequate to attain the economic objectives of the planners. The objective of the policy change that brought the SCSD into being was to better attain the central objectives, i.e. a new economic and administrative mechanism to achieve the same objectives more efficiently.

The planned economic effect of the SCSD was to generate increased planning efficiency by reducing the number and changing the nature of the control figures (success indicators) to make them more internally consistent and generally reduce the amount of detail handled at the centre. At the same time, administratively control was to be increased by reducing by several-fold the number of economic units that had to be centrally controlled. The control mechanism is therefore made efficient using the principles of decomposition.

The structure of the streamlined centralized system with decomposition is depicted in Fig. 1. The structure of the model consists of a centre (the central planners), a set of second-level large economic organizations—in the planning practice of Eastern Europe these could be the DSOs in Bulgaria,

WOGs in Poland, *centrale* in Romania, or VVBs in East Germany—and, finally, a third level of enterprises subordinate to the associations.

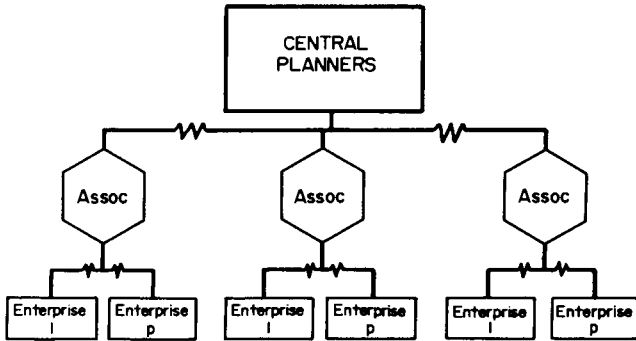


Fig. 1

Planning under the streamlined centralized system with decomposition

In our understanding of the SCSD system the enterprises play a very secondary role—particularly when they give up their legal and economic independence to the associations—and we therefore focus our attention on the DSOs. For this same reason we argue that while on the surface this is a three-level system, for the purposes of control—and we feel that the preservation of control while attempting to find a way to increase the efficiency of planning is the leitmotiv of the entire development of the SCSD—it is only properly seen as a two-level planning system. (But a two-level planning system that is very different from that of Kornai and Lipták, 1965.)

The way in which the SCSD has developed from the traditional centralized system in the direction of greater decomposition of the planning process is illustrated in Fig. 2. The development of the DSOs (and later the agro-industrial complexes (APKs) in agriculture and the industrio-agrarian complexes (PAKs) in agriculture and the food industry) has clearly been characterized by a dominant trend to the right, i.e. towards reducing the relative importance of central planners in a large number of economic decisions. (But there have also been examples of retrenchment.)

Just as there are country differences in the exact relationship between the associations and the enterprises across the countries of Eastern Europe, so are there differences between sectors (industry and agriculture) and even within sectors (sugar-beet growing, some parts of livestock breeding, and the rest of agriculture) within Bulgaria. But the pattern clearly has been one of growth in the importance of the associations and reduction in the importance of the enterprises.

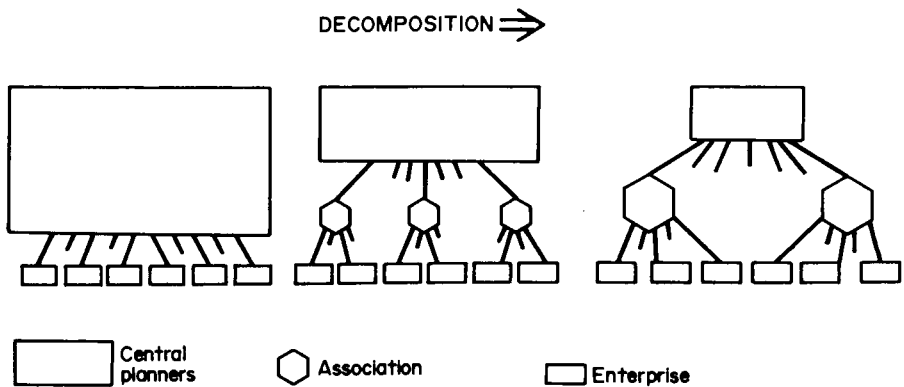


Fig. 2

Central planning and the process of decomposition

So has the pattern also been one of reducing the number (while simultaneously attempting to increase the consistency) of the plan norms. Thus, for example, throughout most of the 1970s Bulgarian agriculture was subject to obligatory deliveries (depending on the specialization of the farm) for wheat, grain (maize and barley) for fodder, rice, beans, sunflower seeds, cotton, wool, tobacco, sugar-beet, potatoes, tomatoes, peppers, apples, peaches, grapes, milk, meat, and eggs (Wiedemann 1980b).

From 1979 the APKs were freed of many of their former binding requirements and now have only four types of indicators: the volume (in natural units) of compulsory sales of final products for the domestic market, for export, and for processing; foreign exchange norms for exports and limits for imports; contributions to the state budget; and limits for the supply of raw materials, industrial inputs, power, and fuel. In allocating the obligations for compulsory deliveries, no more than a maximum of ten indicators can now be allocated per okrug and the okrug planners are bound not to allocate more than eight per APK.¹

"The *kj* Problem" and its Resolution

Any attempt at further insight into the forces that led to the introduction of a new planning model and of the SCSD model in particular must begin with the fact that at the national level there is not one objective but a number of objectives of the planning process.

Since in a planned economy the centre has a number of objectives and since in the socialist countries these cannot be readily reduced into one synthetic

indicator, planning activity at the macro level involves giving a number of commands to *each* of the production units. This is the origin of what we term *the kj problem*, where k is the number of commands given to each of the j production units in the new planning model.

As the size of the Bulgarian economy grew, the kj problem became progressively more complex. Moreover, growth of the economy and the development of more complex interrelationship among its parts generated a more complex planning task. As the informational flows within the economy grew, this also led to a more complex planning task.

The more complex planning task that resulted from the growth and development of the Bulgarian economy and the growth of the information flow also generated a more complex decision-making problem. This more complex decision-making problem, with the same centralized planning model as earlier, led to increasing inefficiency in the planning process. The increasing inefficiency that resulted from the increasingly complex decision-making problem generated pressure for a reduction in the size of the kj problem.

One way of reducing the size of the kj problem was to reduce the size of j' . This meant reducing the number of production units, which is horizontal integration. This generated the *horizontally reduced problem*:

$$\left[k' \right] \cdot \left[\frac{j'}{n} \right]$$

There were, however, limitations to the extent to which this solution to the problem could be extended since the solution came up against the problem of economies of scale. The Bulgarian therefore also turned to a reduction of the size of k' . This meant a reduction in the number of controls emanating from the centre. This in turn meant that there would be an increase in decision-making autonomy at the lower levels, a delegation of decision-making authority from the centre. This generated the *vertically reduced problem*:

$$\left[\frac{k'}{m} \right] \cdot \left[\frac{j'}{n} \right]$$

Defining $k = k'/m$ and $j = j'/n$, this can also be written as $[k] \cdot [j]$.

The effect of solving the planning problem through first the method of horizontal reduction and then of vertical reduction was to create a planned entity that was decomposed into a number of blocks, each of which conducted the planning activity within its sphere of interest and each of which was controlled from the centre.

The resulting SCSD as a planning model then represents a response by the central planners to changes in the economic reality that took into account the pressing need to ensure that the economy performed with a certain efficiency (or not below a certain efficiency) while at the same time preserving at all costs the essence of the traditional centralized planning model.

We would suggest that under the SCSD it should be possible to increase the efficiency of the planning model—where efficiency is measured in terms of the attainment of the central determined plan targets (which are assumed to embody the preferences of the planners)—either through the generation of higher absolute levels of resource availability or through an increased efficiency of utilization of the existing resources or both. The question then is how efficient is the network of control and the system of incentives in converting these new resources into higher values for the plan targets and therefore into a higher degree of attainment of the preferences of the planners.

The question of the efficiency of the SCSD model is also bound up with the question of the efficiency of information flows under the model. The relegation of certain decisions to the level of the DSO increases the amount of informational input into the micro- and meso-level decision-making process, but does not guarantee that the decisions based on this information and the information fed upward in the reverse information flow will correspond to the maximization of the macro-economic preference function of the central planners. The net effect of the changes again depends on the network of control and the system of incentives.

Evaluating the Bulgarian Model²

An evaluation of any thoroughgoing organizational change should only be made after a reasonable period of time has been allowed for the adjustment of the system to the new planning model, but the results for the period 1971–75 should meet this criterion. From Table 1 it is clear that the results for every important indicator were down as compared with 1966–70 and many were well down on the corresponding plan targets. According to the planners themselves, the period saw an appreciable rise in inefficiency in the use of many material inputs, a slow increase in the quality of output, and rapidly rising stocks of uncompleted construction (*Rabotnichesko Delo*, 23 Feb. 1976).

Accordingly, a number of changes were made in the planning and management of the economy over 1976–80, including the introduction of the new Soviet system for the organization of labour, changes in labour norms, efficiencies in administrative personnel, and changes in the wage system. As

Table 1 shows, the changes were not successful, and the economy was characterized by a marked slowdown over the 1976–80 plan period. Industrial production, still the key to the Bulgarian economic development strategy, showed an almost constant decline in its growth rate over 1976–79 as well as in the plans for 1980 and 1981, and if the 1976–80 plan were to be attained the planned growth rate of 6.3% for 1980 would have to be replaced by one of some 18%.

The most recent attempts to counteract the economic downturn were management changes in the DSOs (embodied in resolutions of July 1979) designed to increase the quality and production efficiency of production particularly at the lower levels in the enterprises by introducing full self-accounting for all enterprises and economic organizations. This increases the responsibility of each enterprise for their economic decisions and, therefore, it is claimed, the efficiency of the system—without the loss of central control of the economy that accompanies the introduction of market reforms. The newest feature of these changes is the introduction of economic self-accounting at the level of the brigade in all production units (including factories, farms, and non-economic organizations), this involving granting detailed plans and targets to each brigade, and it is the greater economic stimulation of economic performance at the lowest level in the brigade rather than thoroughgoing economic reforms that is important in economic policy in Bulgaria today.

The fact that the targets of the 1976–80 plan would not be met has been evident for some time. More interestingly, the planners appear to have accepted this reduction in the rate of growth as unavoidable despite all the organizational changes, since the newly announced plans for 1980 and 1981 plan for a growth of only 5.7% and 5.5% respectively in the net material product and 6.3% and 6.1% respectively in gross industrial output.

For agriculture, the average annual increase in gross agricultural output over 1970–73 had been 3.0%, but over the years 1973–77 it increased at an annual average rate of only 1.4%. Because of the actual decrease in output of 4.6% in 1977, the 1978 plan target of 5% was just fulfilled, but this clearly represented a decrease in per capita production. For 1979 the growth rate rose to 7.8%—the most important contributing factor being a record harvest from a record yield of maize—but this figure is artificially high in comparison with the earlier growth rates.³

The failure of the new APKs introduced in 1970 to provide the desired stimulus to agricultural production has been partly ascribed to the bad weather in Bulgaria in recent years, but it has also been clearly admitted in Bulgaria that there were a number of shortcomings in the organization of agricultural production that contributed significantly to the unsatisfactory performance of the sector. Moreover, not only were there problems in the

Table 1
The Growth Rate of The Bulgarian Economy

	Real average annual growth rate									
	1966-71 ^(a)	1971-75	1976	1977	1978	1979		1980	1976-80 ^(a)	Plan
						Actual	Plan			
Produced net material product	8.7	7.8	6.5	6.3	5.6	6.5	7.0	5.7	7.7	7.7
Gross industrial production	11.0	9.2	7.1	7.2	6.9	6.6 ^(b)	7.8	6.3	9.2	9.2
Gross agricultural production	3.5	2.9	4.1	-4.6	4.3	7.0 ^(b,c)	7.0	3.7	3.7 ^(d)	3.7 ^(d)
Total gross investment	12.5	8.6	0.6	14.2	0.6	1.9	-1.3	11.1	7.1 ^(d)	7.1 ^(d)
Real income per capita	6.0	5.7	4.6	0.6	1.3	2.1	3.2	3.0	3.7	3.7
Total exports (in current prices)	12.6 (11.3)	10.0 (14.1)	13.4 (14.5)	14.8 (15.8)	10.7 (10.4)	(15.4)	•	•	•	• (9.9-10.5)
Total imports (in current prices)	9.7 (9.2)	14.3 (19.6)	-2.3 (3.8)	5.3 (11.5)	7.2 (12.2)	(7.4)	•	•	•	•

^a Compound growth rates.

^b Data from December 1979.

^c Current prices.

^d Growth rate based on average for 1971-75.

Sources: WIIW; and the data bank of the Vienna Institute for Comparative Economic Studies.

food industry caused by failures in agriculture, but blame was also laid on organizational problems in the food industry *per se*.

Besides the traditional failure of agriculture to make deliveries on schedule, there were problems with deliveries to agriculture from agriculturally related state economic organizations such as the DSO "Milk Industry" and DSO "Grain and Fodder Industry". There were also shortages of fertilizer in agriculture because of the failure of the chemical industry to fulfil its plans for supplies to agriculture.

In the wake of the publicity given to these shortcomings, and as new revised plans for 1979 and 1980 were announced for agriculture, a number of reasons were put forward for the unfavourable development in agriculture in recent years. These included: (i) the incomplete and irrational use of existing material and capital resources presently existing in agriculture; (ii) the inadequate introduction of scientific and technical progress and particularly of newer industrial technology into agriculture; and (iii) inadequacies due to subjective factors. This is all in spite of the fact that the micro-economic organization had been fundamentally altered with the creation of the APKs in 1970; nine years later the macro-economic organization was then extensively changed through the creation of the National Agro-industrial Union (NAPS).

The distinguishing feature of the NAPS is in the sphere of managerial economies. It replaces the previous Ministry of Agriculture and the food industry, and is broader than its predecessor, having responsibility for agriculture, the food industry, agricultural machine building, and agricultural science. The power of the NAPS in this area was stressed by Todor Zhivkov and other leading politicians when they argued that the NAPS was "an economic complex of a new and up to now unknown type which combines state and collective agriculture and agriculture enterprises" and that it would be given all necessary state functions and rights to be able to fulfil its tasks. To drive home the point, it was stressed that the State Committee for Planning, the Ministry for the Chemical Industry, the Ministry of Transport, the Ministry of Supply and State Reserves, and the Ministry of Foreign Trade must all be "especially solicitous" toward the Union (*Rabotnichesko Delo*, 30 March 1979).

Further Evaluation

Having examined planning practice in Bulgaria, this paper has outlined the key features of a planning model that has been designed with the aim of allowing the central planners to overcome the weaknesses of a traditional centralized system that "attempted to plan everything down to the last bolt" (Katsenelinboigen, 1978, 211).

In this presentation an attempt has been made to demonstrate two

fundamental points: first, while this model appears on the surface to be extremely different from the market-reform model that is the traditional focus of discussions of economic reform in Eastern Europe and the Soviet Union, both *the causes*, which led to their introduction, and *the basic objectives* of both the market reforms and the streamlined centralized system with decomposition planning model, are the same; and both types of reform lay stress on greater efficiency and rationality in economic management. However, the SCSD model has the additional feature, that it attempts to attain this increased efficiency at little or no cost in economic and political control from the centre.

Secondly, even when time was allowed for the new streamlined centralized system with decomposition to be fully implemented in the economy, the performance of the economy in 1976–80 (as shown in Table 1) was clearly below that of the periods 1966–70 and 1971–75. The question one would then like to address is whether this reduction in the rate of growth: was merely the reflection of long-run tendencies in the economy that had also been working during the previous periods, or whether the 1976–80 performance—which, on the assumption that the 1967–80 plan is fulfilled, will give an average compound growth rate of 6.1% as opposed to the planned 7.7%—can be taken to imply the failure of the new planning model to function adequately.

Using an exponential smoothing forecasting model, we forecasted the growth of the net material product on the assumption that the trends that characterized the economy over the preceding decade continued to work themselves out over 1976–80. These results were then adjusted to take into account the changes in average factor productivity that had manifested themselves during the preceding decade as well as the changes in the level of factor inputs over the 1976–80 period as compared with the preceding plans. The results of this exponential smoothing forecasting and production function analysis approach to simulating the development of the economy (Wiedemann, 1980a) is to give growth rates of the key macro-economic aggregates which are appreciably closer to the planned figures than those which will actually obtain for the period 1976–80.

The analysis therefore suggests that the introduction of the SCSD has not been as successful as the planners had anticipated when designing the current Bulgarian Five-Year Plan, and that also it has not led to a level of economic performance that is as favourable as a simple simulation of past development patterns and current factor inputs and productivities would suggest would have been possible.

Two factors can be singled out as having been of particular importance in the deteriorating economic performance of the Bulgarian economy over the mid- to latter 1970s. The first is Bulgaria's drastically deteriorating terms of trade. As Table 2 makes clear, Bulgaria's terms of trade have deteriorated

every year since 1973—and over 1976–78 at an average annual rate of 4.7%. The single most important factor in this deterioration was in Bulgaria's terms of trade with the Soviet Union: Soviet-Bulgarian trade accounts for over 50% of both Bulgaria's exports and imports, but due to increases in the prices charged by the Soviet Union for her exports, Bulgarian terms of trade with the Soviet Union have been estimated to have deteriorated at an average annual rate of 7.7% over the period 1975–77 (Dietz, 1979, 284).

Table 2
Index of Bulgarian Terms of Trade
(preceding year = 100)

1973	1974	1975	1976	1977	1978
99.5	98.9	97.9	95.1	95.6	95.3

Sources: WIIW (1980); Bulgaria (1979), 368

The data required to up-date these estimates are not yet available, but it is clear that this deterioration continued at least through 1978. Assuming the share of Bulgaria's total crude oil imports from the Soviet Union in 1978 was the same as the average for the two previous years, the price per ton for Bulgarian crude oil imports from the Soviet Union rose by 18.8% in 1978 alone (USSR, 1979, 107; Bulgaria, 1978, 381; 1979; CMEA, 1979, 386). This deterioration in Bulgaria's terms of trade with the Soviet Union is in line with the general pattern of the development of terms of trade between the Soviet Union and the East European countries over the mid-1970s, whereby those countries generally considered the most faithful allies of the Soviet Union had to contend with the greatest deterioration in their terms of trade with the Soviet Union.

The second major constraint on macro-economic policy making in Bulgaria in the mid- to late 1970s was the size of Bulgaria's hard currency debt with the West (Table 3). While the absolute size of this debt is only around one-fifth of that of Poland, it is nevertheless, relatively very large: the ratio of

Table 3
Gross Indebtedness of Bulgaria to the West
(end of year, estimates in \$US billion)

1973	1974	1975	1976	1977	1978
1.5	1.7	2.4	3.0	3.0	3.4

Sources: Askanas et al. (1979); WIIW (1980).

Bulgaria's debt hard currency debt to her total hard currency current account earnings in 1978 was 4.34. This is by far the highest of any of the CMEA countries. By comparison, for the European CMEA as a whole the value of this ratio in 1978 was only 1.81 (WIIW, 1980).

Conclusions

These difficulties raise fundamental questions of development strategy that require a more comprehensive package of policy measures than that represented by organizational change alone. Nevertheless, one must note that, operating under the SCSD, the Bulgarian economy in 1979 clearly generated the highest growth rate in Eastern Europe, and for the entire Five-Year Plan period only Romania can be expected to out-perform Bulgaria in terms of economic growth.

Furthermore, no economic system or system of economic management has shown itself to be immune to the extreme stress that the developments in the raw materials and energy sectors in the 1970s have placed on them. This means, on the one hand, that the ability to sustain a growth rate of 6.1% is more remarkable than the fact that (assuming plan fulfilment in 1980) the 1976–80 plan will only be fulfilled by 93% or that a simple simulation model (which accepts the economic environment in which the economy functions as unchanged) predicted growth rates higher than those actually attained. Finally, the most recent changes which have been introduced, and particularly those focusing on increasing the role of the brigades in the planning system, appear to us to be very much in the right direction.

Notes

1. The total set of indicators from which these subsets can be chosen include the following: grains, soya products, rice, beans, sunflower seeds, tobacco, hemp, flax, sugar-beet, tomatoes, peppers, potatoes, apples, grapes, meat, milk, and eggs. (For further details, see Wiedemann, 1980b.)
2. This section of the paper makes use of material from a study on economic development in Bulgaria in 1979 and perspectives for 1980–85 written jointly with I. Grosser, with statistical assistance from H. Askanas and S. Vertlib. This joint paper, which benefited from the criticism of the staff of the Vienna Institute for Comparative Economic Studies, appeared in *Research Report 59* (May 1980) of the Vienna Institute for Comparative Economic Studies; but the present author assumes full responsibility for the material here presented.
3. This is because it is, on the one hand, expressed in current prices in a year in which the prices of many products rose appreciably and the growth rates for all other years are in constant prices, and, on the other hand, because the figure comes from December 1979 preliminary estimates, whereas the others are from the official plan fulfilment documents (which often report lower figures).

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Romanian Economic Reforms

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1. Introduction

In March 1978 the Romanian Government announced a set of economic measures, to be introduced by January 1979, which involved a greater role for monetary and financial levers and incorporated elements of profit sharing and worker control.

The official rhetoric to describe the measures appeared to place Romania at the more decentralized end of the East European economic spectrum; such terms as the “new economic mechanism” evoked comparisons with Hungary and “workers’ control” appeared to indicate a movement towards a Yugoslav, or possibly a Czechoslovak 1967–68, type of system.

Although it is still early to judge the significance of the proposals, in practice they do not appear to represent such a thoroughgoing decentralization as the official rhetoric implies—in particular the continued existence of a large number of centrally determined enterprise indicators and the absence of market indicators for inter-enterprise transfers, means they should not be confused with worker control on Yugoslav lines.

Consequently the most appropriate comparisons for the Romanian economic system may still be found with the more centralized economic systems of the USSR, Bulgaria, and the GDR of the mid-1970s, particularly with respect to the development of industrial centrals which have clear parallels with industrial associations in the USSR, the VVB in the GDR, the DSO in Bulgaria, and the WOG’s in Poland. Furthermore, the principle of “workers’ control” appears to be primarily directed at appealing over the heads of enterprise managers to technical and scientific personnel and party activists to draw up taut plans involving higher output targets with available

* I am indebted to comments received at the Conference and to the assistance provided by CARIS of the BBC Overseas Unit, particularly in providing information from the *BBC Summary of World Broadcasts*.

planned materials, rewarded by monetary bonuses, and can be compared with Soviet *Vstreichnii* (counterpart) planning.

The paper attempts to demonstrate that the measures represent the current stage of implementation of reform measures first published in 1967 and subsequently delayed for predominantly political reasons; they may, however, become the basis of a qualitatively different form of centrally directed economy based on very large production units which perform considerable social functions in addition to their productive role.

2. Romanian Economic Development

The principal feature of Romanian economic development between 1950 and 1977 has been a rate of growth of industrial output of about 12.9%¹ brought about by a rate of growth of industrial investment of 13% per annum, and of the industrial labour force of 5% with labour productivity growing by 7.9%. The principal constraints on industrial development have been the capacity of both industrial enterprises and urban areas to absorb an influx of labour from agriculture requiring a high rate of investment in both industrial capital and infrastructure. As a result the proportion of national income allocated to investment has grown from 17.6% in the 1951–55 Five-Year Plan to 34.1% in 1971–75. Consequently, although national income has grown by 9.7% per annum, real wages have only grown by 4.9%. This has been supplemented by a faster growth of the social wage with the result that real income per head has grown by 5.4% per annum.

A policy of economic nationalism directed at developing a broadly based industrial structure resulted not only in a concentration of investment in heavy industry (85% of industrial investment) but a spread of investment across both a broad range of industries and of commodity groups within industries. Before the 1967 directives this investment policy was achieved by a highly centralized system of planning in which gross output targets were handed down from the State Planning Committee to industrial ministries for disaggregation to enterprises with little prior consultation,² whilst investment was largely financed through the State budget with heavy dependence on turnover tax as the major source of revenue.

Following the death of Georghiu-Dej in 1965 the majority of leaders appeared to accept that a highly centralized system of planning was appropriate to Romania's stage of development, but that some modifications, including greater consultation with enterprises in the process of plan formulation, were necessary, in particular to overcome the problem of excessive consumption of raw materials per unit of output. Ceausescu's only personal commitment at the 9th Party Congress (1965) was to the introduction of the principle of collective management.

By 1967 Romania's economic policy could be divided into two major strategies. Externally Romania initiated a policy of liberalization in her political affairs with the West and attempted to stimulate economic growth by importing technology (including managerial expertise) partly through the aegis of co-operation ventures involving Western multinationals and through the direct purchase of Western machinery and equipment on credit with the intention of repaying loans through sales of the resulting output to the industrialized West and the Third World. This policy has been described elsewhere³ and this paper will concentrate on the second development strategy—internal reform. It should be noted, however, that failure to obtain the desired hard-currency earnings in the early 1970s may have been a contributory factor to the changes enacted in 1973, while the increased hard-currency cost of raw materials imported from non-socialist sources after 1973 (and the resulting need to limit machinery and equipment imports from the West) increased the urgency for domestic reform, particularly with regard to improving enterprise production efficiency, and were a major factor contributing to the 1978 changes.

Domestic reforms were initiated in December 1967 with the approval of the "Directives of the Central Committee of the Romanian Communist Party on the Perfecting of Management and Planning of the National Economy" by the Party's National Conference following a series of experiments in seventy-one enterprises.⁴

The Directives contained elements of compromise between those economists who favoured a reduction in the number of centrally determined indices and the use of profitability as an indicator of enterprise efficiency with a greater role to be played by financial levers and material incentives, and those who proposed to maintain or even increase the number of indicators, but argued that greater plan accuracy and tautness would be achieved if enterprises were granted greater autonomy in plan formulation. Both schools agreed that they were not proposing either optimal planning in the form of a single optimization criterion for the whole economy or a version of market socialism.⁵

The Directives also reflected a political dispute between Party and State activists, the latter favouring a high degree of centralization. Ceausescu's personal position was complicated by the fact that he apparently favoured the more centralized economic approach whilst his power base lay in the Party apparatus. Consequently his major efforts have been directed at limiting the power of the State bureaucracy whilst bringing the economy under Party control and filling State positions with personnel loyal to himself.

3. Principles Contained in the Directives

The general principles contained in the Directives were stated to be to remove excessive centralism by bringing management closer to production, giving greater powers to the economic units in organizing and directing their activity, and freeing the industrial ministries from problems of day-to-day administration in order to concentrate on major problems of development. An increased role was to be assigned to price, finance, and credit levers involving the retention by enterprises of part of their profits for the payment of material incentives and for financing investment. The principle of collective management was to replace one-man management in all sectors of economic activity including enterprises.

The major organizational proposal in the Directives was the establishment of industrial centrals, “an autonomous economic unit”⁶ composed of several enterprises combined on principles of vertical or horizontal integration together with research and design institutes as an intermediary stage between ministries and enterprises. The most-favoured form was to be the horizontal integration of a large enterprise with other smaller enterprises with a “similar production profile” whose headquarters were to be established in the locality of the main component enterprise. Centrals were to take over “part of the powers of the ministries and other central bodies”⁷ particularly to “work out their own plan . . . starting with the targets received from the State Plan”⁷ and were to be responsible for formulating obligatory indicators for the enterprises under their jurisdiction.

The central would, in consultation with the ministry and other economic bodies, estimate targets for its output and assortment plan, the volume of deliveries to the market and other centrals, exports, indices for cost reduction, imports, inputs of materials, and its financial plan. Once agreed the targets would then form the basis of obligatory indicators for the central, which was then responsible for allocating these targets between enterprises and was to establish a large number of compulsory indicators for each enterprise, including:⁸

- (1) Gross output, marketable production, and the assortment of key products in physical units.
- (2) The volume of deliveries to the market fund and export.
- (3) Deliveries of main products to other enterprises.
- (4) Material supplies from domestic sources and imports, and consumption norms.
- (5) Labour productivity.
- (6) Total wage fund.
- (7) Maximum number of wage earners.
- (8) Average wage.

- (9) Expenditure per 1000 lei of marketable product and production costs for main products.
- (10) Returns to be obtained on fixed and working capital.
- (11) Volume of payments to the State budget.
- (12) Volume of investment and specification.

The construction of new enterprises and the major expansion of existing plant were to be financed from the State budget but enterprise operational efficiency was to be improved by the use of bank credits for plant modernization, retooling, etc.⁹ Interest charges and repayments were to be met from planned profits with punitive interest rates to be charged for failure to commission investment according to plan.¹⁰ Banks were to play a more aggressive role in supervising enterprise cost plans, eliminating losses, and denying credit to enterprises which failed to fulfil plan targets.

Considerable emphasis in the Directives was placed on linking material incentives to work performed, but the concrete proposals involved reducing the level of bonuses (which had previously accounted for 15–25% of income), incorporating them into basic wage rates and introducing a system of penalties for the non-fulfilment of specified plan tasks.¹¹ It was argued that workers' current high level of dependence on bonuses to maintain income encouraged management to set plan norms too low in order to avoid labour problems which also offset the effect of skill differentials. The penalty system would give more detailed control over the performance of individual workshops and workers, and would reduce the distortions resulting from linking bonuses to gross output by linking penalties to the failure to meet other obligatory plan indicators. Furthermore, the monthly wage rates of administrative staff in centrals would be reduced for the non-fulfilment of plan tasks by the central as a whole.¹² A part of above-plan profits arising through the enterprise's "own activities" could be used for the payment of small annual bonuses to all employees and for social and cultural expenditures, with the remainder to be paid into the State budget.¹³ All above-plan profits arising from circumstances "external" to the enterprise were to be paid into the budget. Wholesale prices were to be revised to reflect "social production expenditures", eliminate planned losses, and reduce unjustified differences in profit rates between industrial branches.¹⁴

The crucial inconsistency in the Directives was the unwillingness to give up detailed centralized control while simultaneously proposing greater autonomy for economic units to stimulate production efficiency. Consequently, economic units were instructed to draw up their own plans (in consultation with higher bodies) to borrow from banks to modernize plant and to uncover unutilized reserves when all such actions would be incorporated into compulsory indicators (including profits) with monetary

sanctions to be imposed at all levels of the economic hierarchy for their non-fulfilment. The system was therefore essentially authoritarian in that the only incentive to decision-makers to draw up taut plans or exercise initiative was a moral appeal to the general good or the threat of a greater sanction.

The Implementation of the Directives

Three clear stages can be seen in the implementation of the Directives: (i) from 1967 to 1972; (ii) from 1973 to 1978; (iii) from March 1978 onwards.

The First Stage from 1967 to 1972

This stage was notable for the opposition to the Directives by ministry officials who effectively delayed the implementation of proposals that would ultimately weaken their authority. No industrial centrals were established until 1969, and in a speech highly critical of their performance in 1971 Ceausescu argued that centrals had not taken over the powers with which they had been entrusted, and acted more like organizational bodies than production units.¹⁵ He reaffirmed that: "Industrial Centrals originated in the idea that [they] should become units of production not co-ordinating bodies . . . [leading to] the unification and concentration of production into *huge* units, not the establishment of bodies of control with productive activity being left to develop in the old form."¹⁶

The system of management in this period has been analysed on the basis of extensive interviews with managerial staff by Granick, who argued that the system was "quite centralized even by the high standards set in the USSR in the 1930s".¹⁷ He concluded further that the orthodox model of explaining managerial behaviour in centrally planned economies, according to which managers pursue indicators linked to bonuses (success indicators) to the detriment of other plan tasks or social goals, had no explanatory value in Romania, attributing this mainly to the fact that bonuses formed a relatively low proportion of managerial income and that plan targets were so slack that the pursuit of gross output targets did not necessarily involve the violation of other indicators.¹⁸ Furthermore, he discovered that while plan targets for centrals were frequently changed by the Ministry during the period of implementation, central and enterprise managers scarcely exercised any "economic" decision-making functions but were concerned purely with problems of technical efficiency. He likened the functions of the management of industrial centrals to those exercised by "foremen and junior management in Western capitalist firms rather than . . . [those] exercised by top or even middle management",¹⁹ despite the fact that industrial centrals employed on

average 8000 people. Decisions involving economic choices were either taken at the level of the Ministry or not at all.

This state of affairs could be largely attributed to the system of remuneration outlined in the Directives, whilst the failure to enact a price reform effectively prevented any serious decentralization or the introduction of material incentives linked to economic indicators at the enterprise level, and hampered the work of the newly established collective-management bodies (see below).

The Second Stage: 1973 to 1978

The major features of the second stage of implementation were the development of Party control over the economy by the merging of Party and State posts in economic administration, the development of the "Single (Unitary) National Socio-Economic Plan", and a reorganization of ministries, centrals, and enterprises which has reduced the power of the State bureaucracy and led to a considerable concentration of production at both enterprise and central level. These measures have been accompanied by an apparently bewildering number of administrative changes which partly reflect Ceausescu's personal predilection for organizational change, but whose real significance has been to considerably strengthen Ceausescu's personal power and concentrate economic power in the hands of a small group of individuals. The most significant economic change has been the establishment of the Supreme Council of Economic and Social Development, which took over the functions of the Economic Council for initiating studies into the long-term direction of economic development and some of those of the State Planning Commission for implementing five-year and annual plans and is chaired by Ceausescu.

(a) *The single national socio-economic plan.* The nature of the single socio-economic plan, the degree of Party control, and centralism were clearly described by Manea Manescu, then Chairman of the State Planning Commission and subsequently Prime Minister from 1974 to 1979:

"The single national plan must cover all social sectors, State and co-operative sectors, small handicraftsmen. . . . The measures taken in recent years do not consist of simply decentralizing decision taking and management, all that was done in improving planned management was intended to ensure simultaneously an *increased* role for the plan in guiding socio-economic processes whilst ensuring the growth of the powers of economic units in drawing up and implementing the plan, according to the principles of democratic socialism . . . in crucial socio-economic matters, e.g. setting main proportions of material production, the distribution of

national income, the investment programme, the distribution of the labour force, the financial, credit, price and foreign trade policies, the system of remuneration of labour, measures to raise living standards, etc. . . . decisions can be made only after being comprehensively discussed by the Party and State managing bodies.”²⁰

The principle of democratic centralism meant that enterprises, industrial centrals, and the corresponding workers’ committees were to be more actively involved in discussing and formulating plans prior to their approval at the centre. The basic intention of the “elaboration of the plan from the bottom up” was largely a political appeal over the heads of the industrial ministries to those “who best know the production capacities” to reveal hidden reserves and implement taut plans whilst simultaneously giving greater powers to the Party organizations to supervise plan fulfilment in centrals and enterprises. Consequently workers’ committees in the enterprises were charged with drawing up detailed draft plans “using the productive potential intensively” whilst “councils for the workers’ control of socio-economic activities, attached to the working people’s committees, *under the direction of the Party committees* in the relevant units exercise a constructive and preventive control intended to strengthen order and discipline in economic activity as a whole with the purpose of ensuring the fulfilment and overfulfilment of the plan and of achieving a high level of economic efficiency”.²⁰ The local control councils were to report to the Central Council of workers’ control over socio-economic activities under Central Party control.

(b) *The reorganization of industrial centrals.* The original industrial centrals had been established on the principles of either horizontal or vertical integration, with the majority (88% in 1970) located at the site of the largest enterprise with other enterprises acting largely as production subsidiaries.²¹ The reorganization of ministries, centrals, and enterprises of 1973 was intended to reduce the power of industrial ministries, move management closer to production, move technical and administrative staff into production, and concentrate industrial production into large units. The number of centrals was reduced from 207 to 102, and the number of administrative staff in centrals from 34,000 to 19,000.²² In industry as a whole the number of administrative staff were reduced from 267,000 to 231,000 while the number recorded as workers showed the largest ever annual increase of 169,000.²³ Although Ceausescu had frequently argued that centrals should be production units not merely an administrative link between ministries and enterprises, his statement that the reorganization was intended to give “a better unitary guidance of the entire economic activity according to branches and sub-branches”²⁴ gave the impression that the reorganized centrals were to perform the functions of the former ministry general directorates, the

majority of which had been abolished, and to operate along the lines of the industrial associations which were being established simultaneously in the USSR, whilst the removal of large numbers of engineering staff from centrals to enterprises left them with a largely administrative character. Fifty-eight of the centrals were organized on an all-country basis, and although eighty-three were located at the leading enterprise a disproportionate number of these were located in Bucharest while Ceausescu still complained in 1974 that their contact both with leading enterprises and enterprises in other localities was unsatisfactory.²⁵

Although centrals were considered to be the "basic planning unit" and operate under conditions of self-management (*autogestiune*) they were still responsible for fulfilling a large number of compulsory indicators. Their increased autonomy lay more in drawing up plans themselves which had to be co-ordinated both with local county (*judet*) authorities and with the functional economic ministries (e.g. detailed labour plans had to be approved by the Ministry of Labour, exports and imports plans by the Foreign Trade Ministry, and similar co-ordination had to take place in the appropriate areas with the Ministries of Domestic Trade, Finance, etc.).²⁶

The powers of centrals to undertake their own investments were considerably reduced and required detailed control from the Ministry of Investment and Construction.²⁷ Similarly, although centrals could enter into direct links for material supplies with other centrals, these had to be concluded in the form of contractual arrangements approved by the Ministry of Technical and Material Supplies and included in annual plans. Centrals were responsible for drawing up and supervising the fulfilment of plans of subsidiary enterprises and took over the practice that Granick observed being exercised by the ministries of re-allocating plan tasks between subsidiary enterprises during the period of plan fulfilment whilst maintaining aggregate targets for the central as a whole.²⁸

A clear economic as well as administrative rationale lay behind the reorganization. A genuine attempt was made to bring industrial managers into closer personal contact with day-to-day problems of administering industry and to free engineering personnel to give "on the spot" guidance to enterprises. Centrals were to become large-scale integrated economic units concentrating output in single enterprises, eliminating duplication in production, ensuring longer production runs, and establishing viable production units to support research and development activities. They took over the powers of the Ministry of Material and Technical Supply in respect of drawing up material balances and effecting material transfers between subsidiary enterprises (thereby considerably reducing reserve stocks of inputs held at enterprises) and could also re-allocate labour (including technical and engineering personnel) between enterprises on a long- or short-term basis.²⁸

The concept of self-management (*autogestiune*) for industrial centrals had more of a macro-economic than a micro-economic character, and appeared to be analogous to the Soviet concept of *Khozraschet*²⁹ by imposing the need for financial discipline on industrial centrals who were obliged to cover their costs from revenues, which could be considered consistent with the "substitution of an economic lever for one which had an administrative character".²⁹ Centrals were also to undertake greater responsibilities for research and development, the provision of technical and vocational education by sponsoring schools and lyceums, and the provision of housing and social facilities.³⁰ This also implied that these costs were to be directly covered in product prices rather than indirectly through the medium of turnover taxation and the State budget, and linked the availability of funds for the payment of a social wage more directly to plant productivity.

(c) *The concentration of production: enterprise size.* Comparisons of enterprise size based on the number of workers are hazardous due to statistical problems of definition and inclusion. Romanian statistics include only those enterprises with financial autonomy reporting to the Ministry of Finance and, by not recording small workshops reporting directly to ministries and centrals as separate entities, together with the amalgamation of small workshops with enterprises, understate the level of small-scale production and do not necessarily provide an accurate measure of economies of scale in production.³¹ They do, however, provide a measure of the administrative categories against which the effectiveness of linking material incentives to enterprise performance and the degree of local democracy in establishing workers' committees may be assessed, and are also particularly revealing for changes in policy through time.

Table 1
Industrial Employment and Enterprise Size

	Number of enterprises				Number of all employees (000's) (including administrative)				Number of workers (total)
	Total	Repub- lican	Local	Co- operative	Total	Repub- lican	Local	Co- operative	
1967	1575	1081	199	295	1763	1493	145	125	1526
1970	1731	1126	246	359	1997	1629	207	161	1758
1972	1896	1239	263	394	2255	1807	241	206	1988
1973	1613	1183	97	333	2388	1910	253	225	2157
1976	1752	1288	99	365	2793	2277	269	248	2549
1977	1635	1237	2	396	2899	2619	4	277	2651

Table 2
Average Employment per Enterprise

	All employees					Workers only	
	Total	State republican	Local	All State	Co-operative	Total	State industry only
1967	1119	1381	728	1280	424	969	1105
1970	1154	1447	842	1338	448	1016	1168
1972	1189	1458	916	1364	522	1048	1197
1973	1480	1614	2608	1690	675	1337	1519
1976	1595	1768	2716	1835	679	1455	1666
1977	1773	2117	1750	2114	699	1621	1931

Table 3
Distribution of Workers by Size of Enterprise

	Number of enterprises			Number of Workers in enterprises (000's)			CHANGES			
							1972-67		1977-72	
	1967	1972	1977	1967	1972	1977	Wor- kers	Enter- prises	Wor- kers	Enter- prises
Up to 200	209	253	149	26	32	21	+6	+44	-11	-104
201-500	478	507	323	159	175	114	+16	+29	-61	-184
501-1000	432	506	382	311	366	283	+55	+74	-83	-124
1001-2000	280	401	366	392	565	528	+173	+121	-37	-35
2001-3000	99	120	195	237	286	478	+49	+21	+192	+75
3000-5000	54	78	134	198	286	509	+88	+24	+223	+56
5000+	23	31	86	203	278	718	+75	+8	+440	+55
Total	1575	1896	1635	1526	1988	2651	+462	+321	+663	-261

Sources: All figures calculated from *Anuarul Statistic al RSR*, various years.

The process of industrial concentration is summarized in Tables 1-3. From the publication of the Directives in 1967 up to 1972 the growth of the industrial labour force (28%) was largely absorbed by the construction of new enterprises covering all sizes of enterprises (Table 3) and types of jurisdiction (Table 1), while the average number of workers per enterprise grew by only 6% (or 1% p.a.). This pattern appears broadly consistent with the concept of

extensive growth, namely combining additional labour inputs with newly constructed plant.

This pattern is abruptly changed with the reorganization of 1973 which was initially aimed at amalgamating smaller enterprises under local administration but also reduced the number of enterprises under republican organization and the number of co-operatives. In 1977 republican industry was further rationalized while local industry was virtually eliminated. The entire growth of the labour force from 1972 to 1977 (663,000) was absorbed by enterprises employing more than 3000 workers, the majority in plants employing more than 5000 workers. The contrast with the preceding 5 years is indicated in Table 3. Four hundred and forty-seven enterprises employing under 2000 workers each lose their autonomy, the reduction in the number of workers in those plants (192,000) being exactly offset by the increase in employment in middle range plants (2000–3000 employees). Consequently the policy appears to have been that increases in middle-range plants have been brought about largely by enterprise amalgamation, whilst new construction has been concentrated in large-scale plants.

(d) *Changes in the financial mechanism, 1974–77.* In 1970 enterprises had been empowered to finance a proportion (reaching 15% in 1973) of investment through retained profits. In 1974 centralization over both the direction and source of investment finance was re-established simultaneously with the introduction of financial measures which lay at the basis of the less-centralized economic-financial mechanism of 1978, an apparent contradiction that may best be reconciled in terms of *reculer pour mieux sauter*.

Direct taxes on the population have traditionally only accounted for between 5–8% of State revenue while the major source of revenue has been provided by taxes on enterprise costs and the difference between production costs and sales prices. The failure to initiate a reform of wholesale prices, which had been established in 1963 largely on the basis of high-cost producers, resulted in uneconomic differences in enterprise cost structures and adversely affected experiments to introduce profitability as a criterion of enterprise efficiency between 1967 and 1969.³² An *ad hoc* measure consisting of a regularization tax (effectively the difference between wholesale prices and average branch cost plus a 15% mark-up) was introduced in 1970.³³

Until 1974 the principal sources of budget revenue (Table 4) were turnover tax, predominantly levied as a predetermined proportion of enterprise costs, differentiated by commodity and paid directly by the enterprise into the State budget and enterprise profit payments, composed of planned profit payments (which remain obligatory for the enterprise even if plan targets were not met) and the major share of above-plan profits (enterprises were allowed to retain an amount of above-plan profits, not exceeding 8% of the wage fund, for bonus payments).

Between 1974 and 1976 a price reform was undertaken, basing wholesale prices on average branch costs plus a profit mark-up, leading to the gradual elimination of the regularization tax.³⁴ Turnover tax ceased to be levied on a percentage basis and became a residual between retail and wholesale prices and was progressively reduced and replaced by a tax on the productive assets of the enterprise (effectively a capital charge). Changes in enterprise cost structures resulted in this, in turn being replaced in 1977 by a progressive tax on planned profits in excess of 15%.³⁵ Other taxes on enterprises (details of which were unavailable before 1974) have accounted for 18% of budget revenue, while enterprise social security payments have gradually increased.

Table 4
Sources of State Budget Revenue (%)

	1970	1973	1974	1976	1977
Turnover tax	30.4	27.3	21.9	17.7	11.5
Regularization tax	4.6	5.1	5.2	0.2	—
Enterprise profits	21.6	26.5	21.2	21.6	22.2
Productive assets tax	—	—	10.9	16.8	1.4
Profits tax	—	—	—	—	18.9
Other taxes on socialist units	—	—	17.8	18.9	18.0
Taxes on the population	8.7	8.7	8.3	9.3	9.7 ^(a)
Enterprise social security payments	6.7	7.1	6.8	8.5	8.8
Other	28.0	25.3	7.9	6.8	9.5
Total (billion lei)	133.3	176.0	210.1	254.5	282.0

(a) Includes in 1977 taxes on enterprise wage fund (I estimate this to be at least 7.5%).

Source: *Anuarul Statistic*, various years.

A final change in July 1977 resulted in personal income taxes being replaced by a tax on the wage fund³⁶. Although in the short run this may appear to be a purely administrative change, with individual take-home pay in 1977 largely unaffected, in the longer run the relationship between personal income and taxation will be divorced and the role of the enterprise as the basic tax collection unit is now almost total. Furthermore, with the introduction of profit sharing in 1979 the central authorities could use changes in the rate on individual enterprises to affect income through bonuses to attract labour with greater precision (and for a shorter duration) than changes in the whole wage structure.

Experiments to link enterprise bonuses to net production (i.e. gross output minus all material costs) were conducted in 1973 and should have been universally introduced in 1974. Opposition to the proposals prevented this being enacted before the reforms of March 1978.

The Third Stage of Implementation: From March 1978

(a) *The proposals.* Measures to improve economic management and financial planning were announced at the March 1978 RCP Plenum.³⁷ The measures are currently being implemented and are described in Romanian sources as a New Economic Mechanism (*Noul Mecanism Economic*) which combines principles of Workers' Self-Management (*Autoconducerea Muncitoreasca*) with economic and financial self-management (*autogestiune economico-financiara*). The measures are consistent with many of the principles established in the Directives and appear to represent the conversion of the Party leadership to the views of those economists (notably Gh. Siclovan)³⁸ who proposed a greater use for financial levers, profitability, and material incentives. The major measures are:³⁹

- (1) To impose greater financial discipline on enterprises and reduce costs of production through greater use of the banking system and credit levers in place of budgetary finance.
- (2) To improve the system of enterprise indicators, particularly those concerned with cost reduction and to introduce net output in place of gross output as the basic indicator to which enterprise bonuses will be linked.
- (3) To link material incentives more closely to work performed.
- (4) To improve the functions of workers' committees by providing them with "the economic and financial levers and means to really exercise the attributions and responsibilities devolving on them through the law . . . to bring workers' self-management to a higher level".

The above to be achieved by:

- (5) The introduction of a system of profit sharing whereby planned and above-plan profits are divided between the State budget and enterprise "own funds" to be used for monetary bonuses for workers and the provision of social and cultural facilities.
- (6) Improving the system of material-technical supplies and links between enterprises and stimulating the development of long-term contracts by giving enterprises greater responsibility for drafting their own "economic and social development plans" based on firm orders from domestic and foreign consumers.

(b) *The new financial and economic system.*⁴⁰ The micro-economic rationale of the new system is an attempt to stimulate enterprise (and higher

level managerial) interest in cost reduction by linking material incentives more closely to indices that reflect production costs and to give banks a more aggressive role in supervising their implementation by imposing financial penalties on enterprises for the inefficient use of material and capital resources. The macro-economic rationale is to increase the proportion of overhead costs such as investment, research and development, and social and cultural expenditures that will be financed through the sale of output rather than through the State budget whilst simultaneously linking personal and social income directly to variations in industrial productivity. Consequently investment, although still centrally determined, will be financed to a greater extent by bank loans, repayable from profits, with penal interest charges on late commissioning of plant, while a greater portion of the social wage (officially 22% of real income) would be administered through the enterprise and would be directly affected by any failure to meet planned productivity which would affect bonus-forming indicators.

The first step in this process is that enterprises are required to draw up revenue and expenditure plans which were not intended merely "to transfer data from one source to another" but to involve a thorough examination of costs of production and are to be strictly connected to other plan targets (gross, net, and marketed output, costs of production per 1000 lei of product marketed, labour productivity, etc.).

Consequently the level of planned profits can be calculated which are then divided between compulsory payments and enterprise own funds. Compulsory payments consist of payments to the budget; payment of interest charges and the repayment of loans and other charges imposed on the enterprise by law. Enterprise own funds are divided between payments of monetary bonuses, social-cultural expenditure, and working capital. The composition of the various funds are differentiated by branches and subbranches of the economy by ministries and industrial centrals. The compulsory payments have first call on the enterprise budget (with priority to payments to the State budget) and any failure to meet plan targets, particularly cost targets, will therefore have a direct effect on the availability of funds to pay material incentives. In cases of severe difficulty, enterprises may be forced to borrow working capital at penal interest rates. Similarly, cost reductions, increases in productivity or marketed output will result in above-plan profits which are divided between compulsory payments and own funds according to predetermined rules. Ten per cent of above-plan profits arising from exports is paid directly into material incentives whilst of the remainder a minimum of 35% is paid into the State budget in addition to other compulsory levies. Above-plan profits allocated to enterprise own funds are divided between the fund for economic development (20% of above-plan profits), the fund for construction of housing (5%) and funds for monetary incentives up to a maximum of 25% of above-

plan profits plus an additional 1% for each percentage over-fulfilment of export targets up to a maximum of 10%.

Consequently monetary incentives to workers were increased by the system and linked more directly to indices of profitability and net production giving workers a more direct interest in cost reduction. According to the system in operation up to 1979, monthly salaries were determined on the basis of wage rates with a 1% bonus or penalty for each percentage fulfilment or under-fulfilment by the enterprise of four specified indicators: gross output; exports; labour productivity; material consumption up to a maximum of plus or minus 20%. The same rules applied to ministries and centrals, but managerial staff at all levels were subject to 4% bonuses or penalties for each percentage point of fulfilment or under-fulfilment. In addition annual bonuses of up to 8% of the wage fund were financed by above-plan profits. Half the above (i.e. 4% of the wage fund) plus an amount equal to 2% of the wage fund were distributed proportionally to wage rates. The remaining 4% plus 1% of the wage fund were paid selectively to individual workers up to a maximum of 3 months' salary. In addition workers could be penalized by up to 10% of their monthly salary for failure to fulfil personal targets.⁴¹ Despite the complexity of bonus forming indicators they only accounted for about 5% of earnings. The new system increases the variable component of income and operates on the following principles: money bonuses from planned profits are paid subject to the constraint that net production targets (based on marketed output) and delivery contracts based on physical output are fulfilled. The planned profit fund is reduced by 1% for each percentage under-fulfilment of either target up to a maximum of 25%. Failure to meet other plan tasks affects planned profits directly (as noted above) and reduces the fund available for the payment of incentives. Above-plan profits up to a ceiling of 25% arising from the over-fulfilment of net output plans, or by reducing costs below plan levels, can be paid out in money bonuses, together with a bonus for over-fulfilment of export tasks.⁴² Two per cent of above-plan foreign currency receipts can be retained for collective trips for workers overseas.

In 1979 enterprises planned to retain over 37% of their profits and enterprise own funds were to amount to 50 billion lei (2.6 times greater than under the old system).

There remains, however, a reluctance to decentralize much authority to enterprises, the degree of central control being illustrated by Ceausescu in April 1978: "these measures have to be implemented within management based on the single-national plan, in keeping with the principles of democratic centralism which calls for self-management and self-administration and the obligation for all units, for all working people, for all citizens of the country to fulfil exactly the provisions of the single plan, the laws, the Party and State decisions."⁴³

A further indication of the limited degree of enterprise autonomy involved in the proposals was illustrated by the law on economic contracts enacted in July 1979,⁴⁴ which provides that contracts must be concluded only on the basis of annual production targets included in five-year plans but be amended to accommodate changes in annual production plans. Furthermore, the degree of enterprise specialization and concentration further limit any choice of suppliers, whilst the fact that enterprises are forbidden to start production of a commodity prior to signing an output contract indicate that the measure is primarily intended to eliminate waste rather than to decentralize authority or introduce competition.

(c) *Workers' self-management.* It is important to neither overestimate nor underestimate the significance of the collective-management principle. On the one hand it does represent a significant departure from the Soviet one-man management principle (*edinonachalie*) and appears to be a genuine attempt to combine the principle of general-staff teams, which are seen as a modern practice of management with some degree of workers' democracy.⁴⁵ The combination of the principle with the single-national plan, however, indicates that it should not in any way be confused with Yugoslav-type self-management. Although the collective-management principle does serve to weaken the power of the State apparatus and to increase Party control over the enterprise, it would appear to be over-cynical to represent that as its sole function. The collective-management principle has been introduced into each stage of the economic hierarchy and basically ensures representation at each echelon of workers from a lower level. Consequently, the nominal decision-making bodies in ministries are the ministry colleges, in industrial centrals the administrative councils (composed largely of directors of subordinate enterprises), and in the enterprises themselves the general assembly of workers, which meets twice a year and delegates its authority to the workers' committee which is composed of representatives elected from the work force together with managerial, technical, and engineering staff who sit *ex officio* and other representatives of the Party, trade unions, Union of Communist Youth, etc. The basic powers of the committees are to draw up and supervise the fulfilment of production plans in accordance with the single-national plan.⁴⁶

Since 1973 an increased role of Party bodies in supervising workers' committees at the national level and of Party representatives on the committees, culminating in Party secretaries replacing the enterprise director as chairman, has coincided with a shift of rhetoric which lays greater emphasis on workers' democracy. In July 1977 Ceausescu proposed to increase the powers of workers' committees and to strengthen the representation of workers and foremen "to determine a greater responsibility for each worker in fulfilling plan tasks . . . working people's councils must

debate and solve all questions related to economic and productive activity . . . to work out development and production plans, the financial plans and budgets of respective units . . . to secure the growth of economic profitability".⁴⁷

These proposals were incorporated in the March 1978 measures, with the principle method for establishing workers' co-interest in fulfilling plan tasks, being the new system of material incentives and profit sharing. The degree of workers' representation on the committees was established by law in July 1978 which ensured that workers' elected representatives would stay in the minority; "The councils of the enterprises are to be comprised of between 15 to 35 people, of whom 7 to 17 shall be representatives of the workers; those of industrial centrals are composed of 35 to 53 members of whom 5 to 15 are representatives of the workers."⁴⁸

In addition, it has frequently been argued that workers' representatives are elected for too short a period to gain expertise and exercise real managerial functions. Although training schools are being established to help overcome this problem, the real power of workers' representatives would appear to be primarily one of supervision of the implementation of centrally determined objectives, together with some improvement in the flow of information from the bottom of the economic hierarchy in the process of plan formulation.

Conclusions and prospects

Prospects for the Economic System

This paper has attempted to demonstrate that the measures enacted in 1978 were predominantly envisaged in the Directives of 1967 whose implementation was delayed partly for reasons of political factionalism and partly because insufficient attention was paid to economic questions of timing, in particular to which measures should necessarily either precede or be introduced simultaneously with others. Despite the official rhetoric of "workers' control" Romania is not moving towards a Yugoslav-type system, whilst the development and role of industrial centrals has clear parallels with the USSR, Bulgaria, the GDR, and Poland. The system would appear to remain centralized in the following respects:

- (i) The vast majority of industrial investment is centrally determined.
- (ii) Detailed plan instructions are still issued to centrals and enterprises.
- (iii) Industry is highly concentrated and monopolistic.

Increased enterprise autonomy largely lies in questions of "production efficiency". The measures attempt to reduce production costs essentially by increasing the powers of enterprises to draw up their own plans in

consultation with the centre, and to make enterprises more interested in the efficient use of inputs in meeting centrally determined objectives by increasing material rewards for cost reduction or increased production through linking incentives to profits. Similarly, the role of the banking system is to supervise the use of inputs and to impose financial penalties for inefficient use that will directly affect bonuses. The major encouragement to draw up taut plans at the level of the enterprise appears to be an appeal to Party activists and technical personnel on workers' committees although this could be supplemented by releasing a greater proportion of planned as opposed to above-plan profits to enterprise incentive funds. The fact that planned profit payments to the State budget have first call on enterprise funds indicates that the "ratchet effect" will probably not be overcome.

The increasing stress on large production units reflected in the size of industrial centrals and enterprises, the concentration of production, elimination of competition, and the role of the enterprise as the budgetary mechanism for maintaining a high level of savings, indicate that Romania is moving towards a system in which production units will play a central role in both planning and social life. Since 1973 attempts have been made to link housing, clubs, canteens, health facilities, and education to the work-place (a process reflected in the countryside by the construction of agro-towns) while the financial provision for these facilities through the enterprise has been considerably enhanced by the 1978 measures. Furthermore, entitlement to participate in large sections of the social welfare system (including sickness benefit and pensions) is limited to State employees.⁴⁹

Speculation concerning the future of the economic system in Romania must combine political as well as economic factors. A major feature of the economic system is that plans of industrial centrals are co-ordinated with functional ministries (e.g. Labour, Finance, Trade, Construction, Foreign Trade, etc.) to ensure balance in the respective sectors. Similar co-ordination with county (*judet*) authorities is intended to provide regional balance. In theory it is possible to envisage the system operating without industrial ministries. It seems unlikely that Ceausescu would be willing to introduce market relations *between* industrial central which would jeopardize centrally determined objectives. This need not preclude the possibility of more rational resource allocation procedures taking place within industrial centrals (in theory possibly even involving internal shadow prices). A principal reason for large production units from the administrative viewpoint may be to economize on scarce managerial and other skilled labour. Consequently, although the profit-sharing and incentive schemes may appear complex for the central and enterprise as a whole, they may be broken up by central and enterprise managers into far less complex incentive schemes for individual workshops and workers, while workers' committees may act as a transmission

belt to explain both the rationale for centrally determined objectives and to indicate workers' co-interest in those objectives in the shape of material incentives.

Reasons for the Reform and Prospects for Economic Development

A number of economic and social factors in the 1970s increased the need to improve production efficiency and may explain the 1978 measures. Hard-currency deficits have increased the need to stimulate enterprise responsiveness to world-market conditions and to economize on the use of imported raw materials, whilst worsening terms of trade, difficulties in attracting credit, and the damage caused by the 1977 earthquake meant that above-plan productivity increases were necessary to prevent cuts in the planned levels of either investment, private consumption, and the high social wage. Although official statistics indicate that such increases will have been forthcoming over the five-year plan period (Table 5) the Jiu Valley disturbances of 1977⁵⁰ indicated considerable hostility to the Government's decision to delay improvements to working and social conditions rather than cut back output targets for industry in the wake of the earthquake.

Table 5
Major Indicators of Economic Development

	1971-75 actual	1976-80 directives	1976-80 estimated at 12th Party Congress	1981-85 directives	1981-90 proposed
National income	11.3	9-10	10.4	6.7-7.4	7.2-7.7
Social product	10.5	8-9	9.5	6.0-6.6	6.3-6.8
Gross industrial product	12.9	9-10	11.0	8.0-9.0	8.1-8.5
Gross agricultural product	6.5	4.6-6.0	5.4-6.0	4.5-5.0	4.5-5.1
Investment	11.5	11.0	11+	5.4-6.2	6.7-7.2
Labour productivity in socialist industry	6.4	6.7-7.2	8.8	7.0-7.5	
Total real income of the population	7.9	6-7%		4.2-4.6	3.4-3.7
Average real wages	3.7	3.5-4.0%	5.9	3.0-3.4	

Sources: Column 1: *Anuarul Statistic 1976*.

Columns 2-5: taken from Ceausescu's speech to the 12th Party Congress, November 1979.

A critical factor for the future, however, will be the necessity to cut the excessive consumption of raw materials and energy per unit of output in view of the problems of both the availability and price of imported oil. The loss of the bilateral oil deal with Iran, which considerably reduced the hand-

currency cost of imported oil, had a major impact in 1979, and the inability to secure alternative supplies from the USSR lead to demands to tourists from CMEA countries for payment in hard currencies for gasoline.

Problems concerning future terms of trade also make it difficult to plan the available level of national income; consequently the 1978 incentive funds may well have a macro-economic rather than a micro-economic rationale. By directly linking the variable component of wages and social expenditure to enterprise productivity it would be easier to make those items the residual factor in response to external fluctuations while shifting the major source of State budget revenue to quotas dependent on planned rather than actual output would mean that centralized investment targets could still be maintained without over-stimulating domestic demand.

The Plan Directives for 1981–85 and estimates to 1990 announced at the 12th Party Congress (Table 5) show a reduction in most major indicators over the 1976–80 period and a greater degree of realism in the light of energy problems. Romania plans to become energy independent by 1990, largely by micro-economic policies, which place emphasis on the supply side by increasing the development of the extractive industries and a nuclear power programme and on the demand side by reducing the growth of industries heavily dependent on raw materials and energy and expanding the output of micro-electronics.

To a considerable degree (like the majority of European economies) Romania must consider itself at a watershed for its economic development, and there can be little prospect of a drastic improvement in Romanian living standards over the next decade, which, without the activation of CMEA proposals towards “levelling up”, will remain amongst the lowest in Eastern Europe.

Notes

1. All figures in this section have been calculated from *Anuarul Statistic al RSR 1978*.
2. V. Rausser; for planning techniques prior to the Directives, see *Bazele Planificarii Economiei Nationale*, Bucharest, 1968.
3. See Marvin R. Jackson, Industrialisation, trade, and mobilization in Romania's drive for economic independence, in *East European Economies Post Helsinki*, JEC, 1977, and Alan H. Smith, Romanian economic relations with the EEC, in *Jahrbuch der Wirtschaft Osteuropas*, Band 8 (ed. F.-L. Altmann).
4. *Directiunile Comitetului Central Al Partidului Comunist Roman cu Privire la Perfectionarea Conducerii si Planificarii Economiei Nationale Corespunzator Conditiiilor Noii Etape de Dezvoltare Socialista a Romaniei*, Bucharest, 1967.
5. This has been aptly summarized by I. Rachmuth in the phrase “Computer automatism is—in our concept—just as unworkable as the automatism of free competition on the market”, in *Revue Romaine des Sciences Sociales*, No. 1, p. 91 (1972).
6. *Directiunile*, p. 21.
7. *Ibid.*, p. 23.
8. *Ibid.*, pp. 81–2.
9. *Ibid.*, p. 104.
10. *Ibid.*, p. 105.

11. Directivele, pp. 120–1.
12. *Ibid.*, p. 121.
13. *Ibid.*, pp. 107–8. This contrasts with a statement (p. 124) that bonus funds would be established from the *growth* of profits from one year to another arising from the enterprises' own activities which would give enterprises a genuine incentive to adopt taut plans.
14. *Ibid.*, p. 115.
15. Speech delivered to a Conference of Managers of Industrial Centrals, 23 February 1971, reprinted in his *Collected Speeches*, vol. 5, pp. 536–61.
16. *Ibid.*, p. 540.
17. D. Granick, *Enterprise Guidance in Eastern Europe*, p. 29, Princeton University Press, 1975.
18. *Ibid.*, ch. 4 *passim*.
19. *Ibid.*, p. 127.
20. M. Manescu, *Era Socialista*, No. 15, 1973.
21. M. Dumitrescu, in *Probleme al Perfectionarii conducere intreprinderilor Industriale*, Bucharest, 1971.
22. The figures have been taken from a speech by Ceausescu to the "Party and State Active in Industrial Centrals" on 2 July 1974, *Collected speeches*, vol. 10, pp. 407–8. Other sources refer to the number of centrals being reduced to 60–70 in 1973.
23. Calculated from *Anuarul Statistic 1974*.
24. Ceausescu, *op. cit.*, vol. 10, p. 408.
25. *Ibid.*, p. 409.
26. The powers that were granted to centrals have been elaborated by Rachmuth, *op. cit.*
27. Ceausescu was particularly scathing about decentralized investment, arguing that centrals had used their powers (to spend up to 70 million lei) to build "administrative palaces". "To leave everybody free to spend the money of our society however it strikes his mind is out of the question. . . . Nobody has the right to build what is not provided by the plan", *op. cit.*, vol. 10, pp. 420–1.
28. See *Romania*, pp. 47–51 and 409–13, World Bank, Washington DC, 1979.
29. Rachmuth, *op. cit.*, *passim*.
30. This theme had been developed by Ceausescu who proposed in 1971 that housing for rental and sale should be distributed by the workers' councils of enterprises not municipal authorities (*op. cit.*, vol. 5, pp. 494–5) and in 1973 (vol. 7, p. 471) that enterprises should sponsor schools with a two-shift system between work and study.
31. It is possible that a large number of small workshops reporting directly to ministries are not recorded. E. Hatos, *Era Socialista*, 1979, No. 8, refers to 2200 workshops and enterprises. However, the difference that Granick observed (*op. cit.*, p. 71) between the number of enterprises reporting to the Ministry for Light Industry and those recorded in official statistics for 1969 appears to have been a result of statistical confusion in how to record the newly formed centrals and was corrected in subsequent editions of *Anuarul Statistic*.
32. O. Stusiuc, *Probleme Economice*, 1969, No. 12.
33. World Bank, *op. cit.*, p. 478.
34. C. Iuga, *Era Socialista*, 1979, No. 14.
35. World Bank, *op. cit.*, p. 479.
36. *Scinteia*, 25 May 1977.
37. BBC, *Summary of World Broadcasts*, 27 March 1978.
38. The reforms appear to be closely modelled on proposals made by G. Siclovan in *Eficienta Economica*, Bucharest, 1974.
39. Details taken from BBC, *Summary of World Broadcasts*, 27 March 1978; Iuga, *op. cit.*, Hatos, *op. cit.*
40. Details of the new system are derived from Iuga, *op. cit.*, and Hatos, *op. cit.*
41. Details of the old system from World Bank, *op. cit.*, pp. 66–8.
42. Iuga, *op. cit.*
43. BBC, *Summary of World Broadcasts*, 3 May 1978.
44. *Buletinul Oficial RSS*, No. 60, 14 July 1979.
45. See C. Murgescu, *Romania's Socialist Economy*, Bucharest, 1974.

46. See Rachmuth, *op. cit.*, and World Bank, *op. cit.*, pp. 37–42 and 409–13.
47. Ceausescu, *Collected Speeches*, vol. 14, pp. 533–4.
48. *Buletinul Oficial RSS*, No. 56, 12 July 1978.
49. For an account of the social welfare system see World Bank, *op. cit.*, pp. 507–12.
50. The events were fairly widely reported in the Western Press in July 1977 and October 1977 but have not been referred to officially.

Czechoslovakia: Economic Reforms

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Before we embark on a survey of the Czechoslovak planning experience and try our hand at prophesying future developments, let us remind ourselves that, in talking about economic planning, we are slipping into loose usage. There surely has been, in this instance, no question of alternative possibilities being systematically explored, projects clearly evaluated and conceived, means assessed and allocated, and chosen projects executed. Nevertheless, in referring to the operation of East European economies, one keeps using a word which connotes all those notions. In consequence, we have witnessed one of many contemporary examples of semantic degradation. Thanks to it, the word *planning* has become associated with economies faced by unexpected turns in export and investment orders, and characterized by summarily expressed production tasks, priority rationing of material inputs, incoherence in interindustry supplies, improvisation, and technological inertia.

It would be going too far to follow Michael Polanyi, who scandalized sovietologists some 20 years ago by claiming that, in the Soviet case, activities comprised by the term “planning” were entirely illusory, since the economy depended for successful operation on specific low-level decisions, linking enterprises into concrete and self-perpetuating supply-and-demand networks.¹ Nonetheless, Polanyi made a point that cannot be easily brushed aside. We are learning that Soviet specialists have estimated the degree to which economic activity can be captured by a quantitative algorithm to amount to about 10 percent in long-term, and about 50 percent in short-term and medium-term planning.² If one further considers the necessity of enterprises to correct for inconsistencies in the quantifiable assigned targets by means of informally arranged transactions, and the need to translate, on their own, broadly expressed tasks into specific economic contracts between enterprises, one cannot escape the conclusion of a severely limited operational effectiveness of planning decisions. To the extent the economy works

successfully, it is performed due to “real” or “natural” horizontal links between producers and users rather than to any detailed ex ante planning from above.

However, not to overstate the case, one must give proper due to instances where planning decisions have been operationally effective. We shall from now on restrict the meaning of the term “planning” simply to decisions and directing activities taking place above a level of the enterprise sector involved in actual production, no matter how distant they may be from the notion of planning in the proper sense, mentioned in the opening. Above-enterprise decision making can be operationally effective with respect to a relatively narrow segment of activities, but these may be strategically decisive. They may change the country’s structure of productive capacities from top to bottom and determine its economic and political fate. This is the aspect of planning we shall keep at the center of our attention.

A survey of the Czechoslovak planning experience finds a convenient reference point not at the chronological beginning, in 1947, but a little after, in the period 1951–53. This was the time when the government introduced, in two stages, the “classic” system of centralized command planning, under the close supervision of Soviet advisers. It bore the marks of its origin, down to including, in the instructions issued by the State Planning Office, production targets for exotic crops such as citrus fruit, tea, and bamboo.³ It is a convenient reference point because all subsequent reforms of the planning system were formulated, or can be understood, as attempts to extricate the economy from the consequences of *direktivní plánování*.

These consequences may be highlighted, if not comprehensively summarized, by the following: (1) incongruence between assignments of activities, on the one hand, and internal production possibilities of enterprises, as well as the established basic network of input–output deliveries, on the other; (2) incongruence between the avowed goals of the planners’ target sets, the form of expressing the targets and their stability, the reflection of physical transactions in financial terms, and the system of managerial incentives; finally, as a further consequence of the preceding incongruences, (3) retardation in the advance of technical and economic efficiency relative to comparable economies of Western market capitalism. Robert Campbell once proposed to discuss the deficiencies of the administrative model of economic organization in terms of isomorphism, or a lack thereof, with the multiple organic relationships characterizing a complex economic universe.⁴ The application of the notion of isomorphism can be usefully extended to the relationship between the various planes within the set of planning activities: information gathering and its distribution; horizontal links between producers and users; price, cost, and profit relations (the *khovraschot* plane); and incentives.

In retrospect, the confusion created by the introduction of centralized

command planning is hard to imagine.⁵ Significantly, as early as 1954, barely a year after the installation of the centralized system, official voices were raised asking for, and anticipating, its abolition. Jaromír Dolanský, the Minister of Planning, issued a call for “a consistent decentralization in planning to be carried out in all planning bodies, in the State Planning Office, in the ministries and in their chief administrations.” However, it took two more years before the theme was taken up officially by the Party organs, at the National Conference of the Communist Party convened in June 1956, and another two years before concrete decentralizing measures were finally enacted in the shape of a “half-way house reform,” the first of its sort, of 1958. Paradoxically, it required such a period of continued centralization, under reduced pressure for output expansion, to remedy the disorder created by the initial onslaught of centralization introduced together with extravagant demands upon performance.

The term “half-way-house reform,” as applied to the semi-decentralized system in force from 1959 to 1963, is intended to place this set of changes between a full-fledged centralized command, on the one hand, and a fully fledged market-oriented decentralization on the other. The measures represented a hybrid of a centrally outlined framework, given by a stable medium-term plan, and a new set of decentralized rules governing horizontal economic transactions and managerial incentives. As Campbell points out, rationalization of the administrative planning structure, in the sense of its greater compatibility with the objectively required pattern of coordination of economic decisions and relationships, is likely to move toward the polar model of the market economy. Thus, the “half-way-house” system of 1958 was characterized by the attempt to introduce “multiple partitioning and overlapping hierarchies” in the form “interstitial agencies”, due to which “the administrative structure becomes a network rather than a hierarchy.”

Assigning the task of allocation of the so-called “funded commodities” to organizational entities, chosen on the basis of pragmatic convenience, the so-called *gesce*, was one such “interstitial arrangement”. Other elements contributing to the creation of horizontal “networks” was the power, received by enterprises, to decide on a certain portion of investments autonomously, and the increased emphasis on inter-enterprise contacts and contracts. However, despite these elements, the problem of isomorphism remained basically unsolved. Planned output assignments; the somewhat overhauled price-profit nexus, supporting the system of “material incentives”; central balancing of materials and their actual distribution via the system of *gesce*; and the actual structure of demand, pulled each in a different direction. The defects were such that the reform could not pass the test of another wave of mobilization plans starting in 1960. It collapsed under the strain of excessive tasks. A return to crude centralization had to take over, without, however,

being able to forestall the major traumatic event of the planning era, the economic recession of the years 1963–64.

The significance of that recession lies in its having discredited both centralized command and “half-way-house” decentralization reforms. It released a veritable wave of political–economic and theoretical criticism, as well as empirical research, which has constituted, in my view, one of the great historical economic debates, at least as important as the Soviet strategy-of-development debate of the twenties, without equivalent in any of the other East European countries. With what iconoclastic relish did scores of economists, supported by members of the managerial class, discreetly coordinated by Ota Šik, expose the absurdities of *direktivní plánování* and the myopia of the *centrum*. In the process, a design of a new and radical economic reform began to take shape between the years 1964 and 1966. The concept of planning was thoroughly redefined by raising market demand to the status of the supreme planning authority. Efficiency was to be regained by giving enterprises autonomy and exposing them to each other’s competition, and to the competition of products from abroad, to be welcome under the rules of a liberalized foreign trade. Incentives, instead of working like Pavlovian responses to an exogenously set up maze of performance criteria, were to be built into and integrated with a coherent, dynamic set of prices, costs, and profits, where technical innovation and growth would become endogenous, self-chosen, and eagerly pursued aims, rather than externally imposed and resisted chores. The reform was not conceived as an *a priori* system to be imposed overnight but as an open-ended sequence of changes, not forced but firmly oriented toward an integrally market-planned “target solution.”

Thus, reform measures introduced in 1967, one year before the start of the Hungarian experiment, were only the first installment of what was to be a radical overhaul of the economic system. The experience of the two years, during which the initial set of reform measures was being road-tested, brought up a number of problems the reform designers had not sufficiently thought about, in particular the need for macro-economic stabilization instruments and a national incomes policy. However, these were about to be tackled, and further major changes in the enterprise constitution and labor unions were in the offing, when the instauration of the Husák regime in March 1969 put an end to further innovations, and, within a year or two, effected a substantial return to previous methods of planning and management, accomplished under the code word “strengthening of the authority of the plan.” The only novelty of the seventies seems to have been a strengthening of the intermediate levels of economic organization, the counterpart of Soviet “associations.” These saw their operational functions extended without, however, having their degree of autonomy raised. The

change may be dubbed as “decentralizing centralization” or, as Alexander Eckstein called it, “administrative decentralization” in contrast to authentic decentralization in the market sense.

Thus ended the exciting, as well as promising, episode in which the Dubček régime thought it would revitalize the régime’s authority by divesting itself, in the economic sphere, of “petty tutelage”, and by retaining only the functions of general stewardship. In terms of internal power relations, there took place a reassertion of the traditional concept of the totalitarian system of the Soviet type, based on the institutional interpenetration of the Party and all the levels of economic administration, and the immiscence of the center in lower-level operational tasks.⁶

As for the overall performance of the economy following this centralizing reversal, it was doing, by the usual standards, acceptably well. For the period 1970–78 the annual rate of growth of the real GNP was about 3.5 percent, and about 2.5 percent on a per capita basis.⁷ There was no repetition of the 1962/63 slump. Structurally, Czechoslovakia succeeded to reduce its dependence on imports of key agricultural products to the point of self-sufficiency. Personal consumption has been steadily growing, even though its share in total output declined from 58.5% in 1967 to 54.3% in 1976.⁸ Housing has been improving, and the equalization of rural and urban living standards, as well as the closing of the gap between the level of economic parameters in Slovakia and in the Western part of the country have been steadily progressing. Thus, on the face of it, the need of a thoroughgoing institutional change, enabling the country to move again, seemed to have been oversold. One might have answered the advocates of the market reforms with Bertold Brecht’s line, “es geht auch anders, doch so geht es auch”.

However, analyzed more closely, statistical indicators have been indicating a deterioration of economic performance. Thus, from 1973 on, deterioration of the terms of trade with the West resumed⁹ after having deteriorated by 50 percent between 1955 and 1967.¹⁰ The proportion of intermediate uses (inputs) in total gross output rose from 57 percent in 1970 to 61 percent in 1977.¹¹ Between 1970 and 1978, the capital–labor ratio increased by about one-half, and in industry by about two-thirds,¹² a consequence of the fact that employment in the sphere of production grew by 0.7 percent annually (1.3 percent overall), while the capital stock grew by 6 percent.¹³ However, the rate of growth of labor productivity, while surprisingly high, on the face of it, began to decline after 1976.¹⁴ The investment share, having reached 35.6 percent of GNP in 1973, according to one published Czech source,¹⁵ has risen further as the decade progressed.¹⁶

The significance of this last statistic is especially important and deserves extra scrutiny, even if one is not able to answer all the questions it raises with total certainty. The investment share in Czechoslovakia seems to us to be a

synthetic reflection of systemic characteristics of the economy, of policies, and of exogenous shocks impinging upon the economy from the foreign trade sector. Consequences of all these factors converge upon it and are needed to explain its exceptionally high figure.

One may appreciate the extraordinary nature of the Czechoslovak investment share best if one relates it to the attained real growth rate of the GNP and then compares this relation with other countries at a similar stage of economic development. The upshot of such a comparison is that, *given an investment share falling somewhere between 35 and 40 percent of the GNP, one is entitled to expect a rate of growth of the GNP about three times higher than the one actually achieved.* This presents a puzzle which seems to be greatly disturbing Czechoslovak officials as well. Leopold Lér, Minister of Finance, who also happens to be chairman of the Committee for Questions of the Planned Steering of the Economy writes: "We must give an answer to the question why, given a rate of investment exceeding 30 percent, which is one of the highest, there exists a continued hunger for new investments."¹⁷ We shall suggest a few tentative and partial answers of our own.

For one thing, the basic method of investment finance is not particularly conducive to economizing at the time of investment decisions and their implementation. That method amounts to centrally raised forced saving via taxation. Hence, investing enterprises do not have to compete individually for privately supplied investible funds, offer interest payments and dividends, and be forever concerned about prospective rates of return. The East European "capital charge," routinized as part of other payments levied on profits, is no substitute for the economizing effects of rates of return and interest in a dynamic market environment. Under State-operated forced saving, investible funds are obtained easily and cheaply. And—easy come, easy go.

A further observation concerns that relationships between the statistically recorded investment outlays and effectively utilizing capital stock. Prima facie, the statistically recorded growth of the capital-labor ratio seems, in the light of contemporary experience, rather impossible unless one has reason to suspect a wild surge of highly capital-intensive automation taking place. In fact, new capacities have been having difficulties with staffing, or else their staffing has been at the expense of filling vacancies created by attrition elsewhere. As an illustration, in 1976, investments in industry alone were so large as to produce 13,000 unfilled new vacancies and 200,000 unfilled vacancies created by attrition in older capacities.¹⁸

It is to be noted that the East European concept of "accumulation" apparently covers components of military expenditures, an element which is clearly sterile as far as contribution to growth is concerned.¹⁹

Finally, it is reasonable to assume that a certain fraction of the capital stock has been made periodically useless by unforeseen changes in production

programs. Idleness of equipment due to this factor, which amounts to "obsolescence" of a special kind and is somewhat analogous to structural unemployment of labor, is probably not captured by the statistical rates of depreciation; consequently, it is likely that published percentages overstate the rate of growth of the effectively utilized capital stock. Discontinuous changes in the structure of demand, expressed in plans, may go far to explain the otherwise paradoxical coexistence of excessive investment shares and chronic excess demand of new capacities and equipment.

The various symptoms of a slow but steady decline in economic efficiency throughout the seventies, and of its acceleration toward the end of the decade, have effectively undercut the view according to which the 1967 market-oriented reform was an unnecessary overreaction to the recession of 1962/63, and administrative planning a perfectly viable system. By the same token, Ota Šik's categorical statement, made to me in 1971, about the system's inability to solve the problems of Czechoslovak economic performance, has been vindicated.

With the symptoms of crisis, not explosive but persistent like a toothache, we have been witnessing the reappearance of statements, analyses, and recommendations which marked the economic debate after 1964. The observation is being made that "after 1973, there took place, as if following a spiral, a certain 'return' to the trend line of earlier years, characterized by the exhaustion of extensive sources of growth. Attempts to shift it on the track of intensive growth continue."²⁰ However, the discussion, if it deserves that name, is muted. It lacks the free-wheeling verve and the brio of its predecessor. Those who go as far as to put into question, once again, "traditional steering structures," and call for "new principles of management," look wistfully in the direction of Hungary, but do not even feel free to call that country by its name. "For the time being, one talks little about these questions," writes a research economist, "even though foreign practice treats them as the adequate response to the necessity of giving the planning system greater depth."²¹

Thus, from the mid-seventies on, a new reform stage in the reform-reversal cycle seems to be announcing itself, starting with verbal trial balloons in the form of conferences and articles in professional journals. However, before we evaluate the significance of these harbingers at the level of talk and theory, let us raise the question of the relationship between the reform-reversal cycle, and a certain alternation between periods of high strain, due to plan-imposed excess demand, and periods of relative respite. This is necessary in order to avoid giving the impression of a mere cycle in the history of ideas, department "philosophy of planning."

To put the matter strongly, periods of command planning, or reversals to

command planning, have been associated with plans of economic mobilization. The ensuing strains produced disruptions, the necessity to relent, and calls for economic reforms. Economic mobilization, in the case of Czechoslovakia, originated regularly in the foreign trade sector, in the form of increased or changed export demands on the part of the Soviet Union. These represented the powerful lever through which the entire industrial structure of the economy was forcibly changed, and made dependent on continued economic ties to the Soviet Union. Periods of economic reform, on the other hand, particularly the reform of 1967, were associated with the aim to increase the integration of the country with the world market and with Western economic institutions.

Thus, the original introduction of Soviet command planning into Czechoslovakia was accompanied by repeated upward revisions of the first Five-Year-Plan (1949–54), raising “the demands upon Czechoslovak heavy industry, in particular upon the production of heavy machinery and equipment . . . [which] necessitated the construction of new capacities, or a reconstruction of existing ones.”²² Part of this upward revision were production tasks for armaments which, according to one source, quadrupled in the years 1950–52,²³ and, according to another, increased sevenfold between 1948 and 1953.²⁴

The collapse of the “half-way-house” reform of 1958 by 1962 was again associated with increased orders for “new military technology” which, according to President Novotny, turned out to be so expensive as to become a burden to the whole national economy.²⁵

The reversal to centralization after 1970 paved the way for another spurt of unexpected foreign-trade demands on the part of the Soviet Union, projected for the period of the sixth Five-Year-Plan (1976–80), after that plan had been completed. The character of these demands has been documented elsewhere.²⁶ The military component seems to figure prominently among them, under the cryptic term of “deliveries of extraordinary importance,” while deliveries centering on various types of pipelines and nuclear-plant equipment, to some extent linked to the common supranational investment projects of the CMEA, are referred to as “extraordinarily demanding export tasks for the USSR.” So extraordinary are these tasks that, according to a spokesman of the State Planning Commission, “Czechoslovakia must develop a substantially greater effort than until now to increase the physical volume of deliveries for export, even at the price of a certain priority redistribution of available [merchandise] funds in favor of foreign trade.”²⁷ Such is the broad background of the deceleration of economic activity observed toward the end of the decade and of the issue of changes in the planning system being put on the agenda.

Is it possible, on the basis of published articles and pronouncements, to get

a sense of direction of those changes which are currently under preparation and those that may still be adopted in the near future? The overall impression is one of coexistence of two antagonistic trends. One consists of intensive practical work within central planning agencies which, in cooperation with various economic research institutes, are preparing a new technical and organizational basis for more effective, more operational central planning procedures. The other consists of skeptical noises, made by authors of critical articles harping on various instances of incongruence between goals and incentives, goals and methods of economic administration, as well as on the need to raise the ability of economic subjects to respond flexibly to information coming from changing environment.

As for the practical work on improving centrally directed planning processes, three major interconnected projects are being actively pursued:

(1) setting up an "automated system of planning computations" (acronym ASPV), (2) expanding and articulating in a new manner the system of material balances, and (3) expanding and reorganizing the structure of organs in charge of actually allocating products tracked by material balances, as well as imported ones. This last project refers to the system of interstitial and overlapping agencies and distributive functions known as *gesce*, and encountered earlier under the "half-way-house" reform of 1959.

The automated system of planning computation aims, first, at streamlining and standardizing the gathering and processing of primary economic data, and, second, at constructing several structural (input-output) models in different degrees of detail, and for planning purposes within various time horizons. What is most striking about this project, which was supposed to be completed, in the main, by 1979-80, so as to serve in the preparation of the seventh Five-Year-Plan (1981-85), is what it implies about the state of planning techniques used throughout the period following the centralizing reversal until now. It seems that the performance of the economy has been carried forward by inertia, improvisation, and closely watched priority tasks, with a minimal operational influence of the planning superstructure. It also implies that research work on stochastic macro-economic models, undertaken in various Czechoslovak research institutes and surveyed recently by A. E. King,²⁸ has been proceeding on an entirely separate track from practical planning activity.

As for the newly undertaken establishment and articulation of material balances, there must be similar astonishment at the late date of this project and at the ability of centralized planning to make do, throughout the seventies, with some obviously much more rudimentary set of material balances. The new articulation consists in a three-tier structure of material balances, according to the administrative level at which a given material

balance and allocation plan are to be established and approved: at the level of the State plan, individual ministries, or the middle level, i.e., that of "associations" (VHJ). The accompanying tabulation shows that the relatively largest increase of articles covered by material balances is taking place at the middle level.

Number of articles covered by material balances at the level of			
	The State plan	Ministries	"Associations"
1978	159	38	28
1979	180	107	100
1980	233	115	210

Source: *Plánované hospodářství*, No. 1, p. 10 (1979).

Thus, the meaning of these changes amounts to a new attempt at "decentralizing centralization," i.e., at delegating certain tasks of planned allocation to subordinate units possessing more direct information as to concrete sources and uses of products, and greater ability to influence their rates of production.

This "deepening" of planning techniques, as the measures are being characterized, is expected to improve the match between plan assignments and actual production processes and transactions. Official references to their deplorable mismatching, such as the following, substantiate our repeated statements as to the "idling" non-operational nature of a large part of planning activities. Vladimír Janza, vice-chairman of the State Planning Commission, declared:

"Considerable problems in the creation of plans are caused by plan proposals [from below] diverging from tasks contained in guidance figures, and containing entirely different demands on sources and their allocation, and this to such an extent that the plan proposals of "associations," but of ministries also, represent a substantially different and less efficient proportionality than determined by the guidance figures. These facts have very serious consequences for the formation of supplier-user relationships; these emerge in different proportions than is objectively possible and determined by guidance figures. This is how supplier-user relationships lose solid foundation and how the most important phase of their formation is being degraded."²⁹

Thus, the response of the central planner to facts of deficient isomorphism is in searching for ways that would improve the quality of the vertical flow of planning assignments, with only partial concessions to the need for respecting the horizontal dimension of economic decisions.

In contrast to this formalistic approach to improvements, skeptics tend to take on the much more fundamental problem of incentives, interests, and congruence between the nexus of monetary categories, plan assignments, and the goals of static and dynamic economic efficiency. To nobody's surprise, the skeptical voices often echo the proscribed formulations of the sixties:

“To face the adoption of an actively operating incentive system . . . means a fundamental upheaval in the behavior of *khozraschot* units. In place of bargaining with the center about the level of planned tasks, expressed by volume, and the associated dissimulation of information, of potentialities and reserves at the stage of plan formation, and the simultaneous inflating of requests of sources to be allocated, and subsidies, there exists, in principle, only one open path for *khozraschot* units to improve economic results: perfecting the use-value parameters and quality: raising productivity and realizing cost savings. . . . For that it is absolutely necessary to introduce *intensive motivational links with respect to actual economic results*. . . .”³⁰

However, the term “market” remains taboo. Nevertheless, some authors have attempted to reformulate the concept of *direktivní plánování* in ways which leave no existing component of the planning system intact. Thus, an author inspired by cybernetics, develops a highly sophisticated notion of planning by objectives, restating in a fundamentally new way the “teleological principle” in planning, and ends up advocating the principle according to which “the organizational structure of the system of planned steering be not considered a constant but a dependent variable, function of the plan.”³¹ Another author, cited earlier, who is concerned with the problem of technical-scientific innovations and their planning, notes the increasing complexity of “coordination and cooperation linkages” in the research–production–use cycle, and draws the conclusion that the emerging networks of linkages and relationships “are not always compatible with traditional administrative structures.” He puts the blame for the existing reluctance to face up to this issue on the “fear of disturbing administrative structures and principles ruling the division of competences and responsibilities among individual administrative links.”³²

One is tempted to conclude that, in Czechoslovakia, solutions to the endemic problems of centralized planning are being mulled over in a way analogous to the sixties and, while the existing planning establishment is busy

computerizing its procedures, a new version of the old Sikian reform is waiting in the wings, ready to appear on the scene with practical programmatic proposals as soon as political circumstances allow. However, the outlook of such a scenario is dim. Not only does the intellectual and spiritual demoralization of the Czechoslovak economics profession preclude such a revival in the foreseeable future. The power relations between the Soviet Union and Czechoslovakia have also changed to the detriment of the latter. A radical, full-fledged market-oriented reform, dominated by criteria of economic efficiency, would have to challenge the existing pattern of foreign trade. Free economic choice, if allowed to be exercised by Czechoslovak economic subjects, would most probably resist the repeated arbitrary turns and increases in Soviet trade orders. This, under present circumstances, the government cannot afford to allow to happen. Soviet foreign trade orders need direct command methods to be communicated to the elements of the economic system and enforced with minimal resistance.

However, and this is a pure wild hypothesis, it is not inconceivable for Czechoslovak planning to be eventually veering toward some kind of a mixed planning system, with command elements dominating the segment of economic operations geared to exports to the Soviet Union, and market-efficiency elements dominating the segment catering to Western trade and domestic demand. This would alleviate somewhat the burden of the economic tribute paid by the country to the imperial metropolis, and it may even be increasingly necessary to enable Czechoslovakia to procure itself key inputs from the West, needed to fulfill those highly demanding export tasks in the direction of the East.

Notes

1. M. Polanyi, Towards a theory of conspicuous production, *Soviet Survey*, No. 34, pp. 90–100 (October–December, 1960), and comments by G. Grossman, N. Jasny, A. Nove, and P. Wiles, pp. 101–110.
2. *Plánované hospodářství*, No. 1, p. 79 (1979). The reference does not give the Soviet source nor does it explain the precise meaning of what it calls “the rate of possible algorithmic expression” (*míra algoritimizovatelnosti*).
3. Státní úřad plánovací RČS, *Metodické pokyny a formuláře k sestavení státního plánu rozvoje národního hospodářství ČSR na rok 1953*, p. 133, Prague, 1952.
4. Robert W. Campbell, On the theory of economic administration, in Henry Rosovsky (ed.), *Industrialization in Two Systems: Essays in Honor of Alexander Gerschenkron*, pp. 186–203, Wiley, New York, 1966.
5. Here is a handful of quotes for illustration: “Workers of a metallurgical concern in Šumperk justly ask . . . what the comrades at the State Planning Office are doing, changing the production plan six or more times in the course of a year” (*Nová mysl*, June 1956 (special issue), p. 97). “In the future, it is not possible to raise planned targets during the year three, four or more times” (*ibid.*, p. 193; reference is to conditions in the Ostrava mining-metallurgical complex). The absence of plan stability marked the subsequent period of relative consolidation as well: “Additional construction projects were inserted into the plan in the course of the year. In 1954 . . . twenty projects, in 1955, nine projects, according to

- proposals of central investors made only in the course of the year" (Červený, E., Nohavica, V., and Tomek, B. *Ekonomické problémy investiční výstavby v ČSSR*, p. 203 Prague, 1961). "Short-term planning before 1958 suffered from lack of perspective. . . . Insofar as disproportions made their appearance later, e.g., after the state plan had been drawn up, or even in the course of its execution, they were hard to solve because the time was too short so that further process of plan execution was, properly speaking, spontaneous. (Vladimír Kosík, *Odbyt a jeho smluvní zajištění*, p. 107, Prague, 1959.).
6. R. W. Campbell, "Economic reform and adaptation of the CPSU", in Karl W. Ryavec, (ed.), *Soviet Society and the Communist Party*, pp. 26–40. University of Massachusetts Press, Amherst, 1978.
 7. T. P. Alton, G. Lazarcik, E. M. Bass, G. J. Staller, and W. Znayenko, *Economic Growth in Eastern Europe, 1965–1978*, pp. 16–17, L. W. International Financial Research, Inc., New York, 1979., Czechoslovak official figures show the annual rate of growth of national income as 5.1 percent per annum for the period 1969–78. Cf. *Politická ekonomie* 27 (11) (1979) 1121.
 8. T. P. Alton, G. Lazarcik, E. M. Bass, and W. Znayenko, *Czechoslovakia, Hungary, and Poland: Domestic Final Uses of Gross Product, Structure, and Growth, Selected Years, 1965–1978*, L. W. International Financial Research, Inc., New York, 1979, p. 13. Official data indicate a decline of personal consumption from 58 per cent in 1970 to 55 percent in 1977, of national income. *Politická ekonomie*, 27 (11) (1979) 1122.
 9. *Plánovaně hospodářství*, No. 8 (1979) 77.
 10. *Hospodářské noviny*, No. 47 (supplement, 1969) 12.
 11. *Plánovaně hospodářství*, No. 8 (1979), 74.
 12. *Politická ekonomie*, No. 11 (1979), 1125.
 13. *Ibid.*, pp. 1121–22.
 14. *Ibid.*, p. 1122.
 15. *Plánovaně hospodářství*, No. 10 (1975), 43.
 16. *Politická ekonomie*, loc. cit.
 17. *Plánovaně hospodářství*, No. 1 (1978) 13–14.
 18. *Plánovaně hospodářství*, No. 9 (1976), 30. Cf. also *ibid.*, 1978, No. 3, p. 63: "It is being estimated that the number of job vacancies in industry rose by 150–160 thousand from 1971 to 1975 while employment grew only by 85 thousand; between 1976 and 1980, the number of job vacancies will increase by about 110 thousand while employment increases by only 95 thousand. In other words, the plan itself assumes . . . that the utilization of the capital stock will decline."
 19. Cf. references to Czechoslovak sources cited in Alton *et al.*, *Czechoslovakia, Hungary and Poland* . . . , p. 3 n.
 20. *Plánovaně hospodářství*, No. 11 (1979), 1123.
 21. *Ibid.*, No. 2 (1979) 22.
 22. R. Olšovský and V. Průcha (eds.), *Stručný hospodářský vývoj Československa do roku 1955*, p. 397, Svoboda, Prague, 1969.
 23. *Ibid.*, p. 392.
 24. *Plánovaně hospodářství*, No. 12 (1968), 18.
 25. As quoted in P. J. D. Wiles, *Communist International Economics*, pp. 114–115, Praeger, New York, 1968.
 26. Václav Holešovský, Czechoslovak economy in the seventies, in US Congress, Joint Economic Committee, *East European Economies Post-Helsinki*, p. 708, Washington, 1977.
 27. *Plánovaně hospodářství*, No. 6 1979, 80.
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GDR: Industrial Reforms

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I. Economic Problems in the Eighties

At the 11th Meeting of the SED Central Committee in December 1979 the SED Secretary General, Erich Honecker, stated in the report of the Politburo: “. . . We are not only facing an aggravation of the situation, which is complex anyway. We are faced with a new situation.”¹

This statement had been caused by the GDR's foreign economy situation and the assessment of the further development of foreign trade prices. When prices for raw materials and fuel started to rise considerably on the world market in 1973–4, the GDR already had a deficit in its trade with the Western industrialized countries. Since this rise in prices, which spread to the COMECON area in 1975 (due to the delayed adjustment of prices because of the forming of averages), the GDR has only succeeded once (in 1978) in increasing the value of exports more than that of imports. Therefore, a considerable deficit has developed *vis-à-vis* Western countries, and, also, trade with the Soviet Union is no longer balanced.

In the meantime, prices have further risen on the world market. Already the burden of interests may probably be causing concern in the GDR's leadership. In the eighties, all politico-economic measures will therefore be focused on the task of reducing the current foreign economy imbalance and of diminishing as far as possible the burdens already existing. This can be achieved by accelerating or consolidating growth, by cutting the increase in imports, and by increasing exports.

Acceleration or consolidation of the economic growth can hardly be achieved in the eighties by increasing the numbers of the work force. In the Five-Year Plan period 1976–80 the number of the work force has increased by just 1% per year—due to the age structure.² In the coming decade, any increase in the work force due to the age structure will rapidly decline.

Presumable Increase in Work Force in 1000 Persons

1976-80	310
1981-85	235
1986-90	65

Source: H. Vortmann, *Voraussichtliche Bevölkerungs- und Beschäftigungsentwicklung in der DDR bis 1990*, *Wochenbericht des DIW*, No. 23 (1976) 228.

The decisive factor for the economic growth is therefore the development of productivity with its components, organization and structure of production and scientific-technical progress.

A decline in the increase of imports, especially of imports of raw materials and energy products, can only be achieved by essentially lowering specific consumption. Scope for this is available: as is shown in numerous indications, also in the GDR,³ the specific consumption both of fuels and raw materials in the GDR is above that of Western industrialized countries. It is required, however, to arrange the system of planning accounting and prices in such a way that these reserves are opened up.

The decisive task of the coming years will be considerably to extend exports. This involves a change in the production structure of industry and a redirected use of production. Domestic requirements—for investments and private consumption—will thus take the lowest place in growth rates. It cannot be excluded that this will start a fateful connection between foreign economy and economic growth: a shortage of domestic supplies could reduce the production capacity of the economy and the willingness of the work force to make an effort. It is therefore the task of the economic leadership to use the resources available for domestic purposes in such an efficient way that these effects are neutralized.

The reforms already carried out and still to be expected are to be seen in this context. They comprise changes in the economic organization, improvements in the assessment of the performance, and changes in the price policy.

II. Reforms

Change in the Economic Organization by Forming Combines

Development and Aims of Combine Forming

Until recently the system for steering industry consisted in principle of three levels. Between the top managing level (Ministerial Council, State Planning Commission, Industrial Ministries), and the level of the enterprises (combine, people-owned enterprise (VEB)), there was a medium managing level consisting of the Associations of People-owned Enterprises (VVB),

which managed, co-ordinated, and controlled the enterprises placed under them. This structure of three levels was recently changed. Most of the VVBs were dissolved and large combines were formed at the level of enterprises.⁴

In early 1980 there were 129 combines in industry and building trades. In the 110 industrial combines, about 90% of the work force of the industrial production and of the scientific-technical potential was concentrated.⁵

The combines consist, as a rule, of 20-40 enterprises; the work force of these combines ranges from 5000 to 70,000. The average work force is about 25,000. The three-level principle—Ministry, VVB, Enterprise—and the two-level system—Ministry, Enterprise—have already alternated in the GDR before. Combines have also been formed before, especially at the end of the 1960s within the framework of the structure-defining planning. However, at that time some sectors of industry remained almost unaffected, whereas the recent forming of combines covers all industrial sectors. The development between 1973 and 1979 has been as follows:

Number of Combines and VVB

	Until 1973	Until 1979
Industrial combines	37*	90†
Building combines	12	19
Total of combines	49	109‡
VVB: in industry	53	13
in the building trade	4	—
Total of VVBs	57	13
Combines and VVBs	106	122

* About 50% of these were formed as "structure-defining" combines in 1968-70.

† About 50% of these were formed in 1978-9. With a few exceptions, the VVB were dissolved simultaneously.

‡ Early 1980: 129 combines.

Source: M. Melzer, A. Scherzinger, and C. Schwartau, *Wird das Wirtschaftssystem der DDR durch vermehrte Kombinatbildung effizienter?*, *Vierteljahrshefte zur Wirtschaftsforschung des DIW*, No. 4 (1979) 368.

According to Honecker the forming of combines is "at present the most significant step in perfecting management and planning"⁶ because "in the combine the decisive phases of the reproduction process—from research and development, plan projecting, construction of means of rationalization to the production proper, including the supply of quality-determining material and the sale of products on the domestic and foreign markets—are economically comprised".⁷

The following is generally expected of the combines:

- progress in productivity through better co-ordination;
- a better solution of supply problems, especially by the affiliation of the enterprises in question;
- acceleration of scientific–technical progress by incorporating the research facilities;
- a more efficient investment activity through better adaptability;
- increased exports through transferring foreign trade authorities.

At the same time, by reducing the number of levels in the managing system of the national economy, the efficiency of transmitting and processing information will be increased. Bureaucracy and superfluous reporting are to be reduced and the central authority is to be enabled to concentrate more on essential questions.

Significance for the Organization of Production

The combines have considerably reduced the number of sector-overlapping relations of exchange. Supplying firms have been affiliated or newly established. Individual enterprises have been amalgamated into larger production units. Combines of general engineering and toolmaking, for instance, have their own foundries, and combines of the shoe industry have their own leather production; producers of diesel engines have been affiliated with agricultural machinery and shipbuilding firms; mining machinery firms have been affiliated to the potash industry and arc-welding equipment firms to the copper-mining industry. In the metalworking industry even whole power plants have been affiliated.* The constant difficulties with supplies, which have almost become a system-specific bottleneck in the GDR's production, are at least reduced in this way.

The forming of combines is expected to lead especially to an acceleration of technical progress in industry. Experiments to include the dynamic element of "technical progress" efficiently in planning have been made for many years. Constant subjects of criticism were the insufficient number of development themes, terms of reference insufficiently adapted to practice, and especially the difficulties in putting research results into production. Now a great number of the joint research facilities of the enterprises (especially the VVBs) have been incorporated into the combines. At the beginning of the 1970s two-thirds of industry's research and development potential was available within enterprises themselves;⁹ this portion has now increased to 90%.

As a special capability of the combines, it is emphasized that they can plan the research process taking everything into account because the research and

development work and the injection of its results into the production is in one pair of hands and closely connected with production. An important improvement is expected especially during the phase of injection into the production, e.g., by providing development capacities, supplies, and equipment.

The recent forming of combines was accompanied by efforts to improve the efficiency of the foreign trade organization and to bring the combines into closer contact with the world market. For this purpose, the division between production and sales—in the foreign trade enterprises, which are mostly specialized in branches—is to be modified to a certain extent. A small number of combines has been given wide-ranging foreign trade functions which are executed by a foreign trade enterprise having, as a rule, the status of a combine enterprise. A larger number of combines is to be authorized to do “independent business” (in the export sector), i.e. they are entitled to conclude foreign trade contracts on their behalf and their own account, and this not only—as before—for spare parts but also for finished products.¹⁰ However, they are still not given any share in their foreign currency earnings.

The Combine Within the Economic Managing System

Following the dissolution of the VVBs, the combines and their managing bodies have been given, for the time being, a considerable part of the decision-making rights of the medium management level.¹¹ The greater economic potential and the greater authority of the combine directors to assert their will in their relations with the subordinated enterprises also turns the combines into a different power factor *vis-à-vis* the Minister of Industry. However, the formulations speaking of a “grown margin of decision-making” of the combines in the GDR are very flexible: the statement that the ministers should now concentrate on the “main problem”, for instance, allows many interpretations. The contents of the decisions¹² on the related changes in the work of the ministries and the State Planning Commission are unknown.

The GDR’s economic leadership expects that the combines will provide for a “visible improvement of rationalization”. In principle, the restructuring will create conditions for that purpose: tight and uniform control of the entire production process can reduce the productivity-obstructing discontinuity in the production process and the continuous dilemma in the sector of supplies, and it can help to overcome bottlenecks and permits in certain cases a better enforcement of innovations. However, a general breakthrough to a higher level cannot be expected automatically. To achieve this, the combine directors and other senior executives have to show a willingness for innovations which is not automatically inherent in the forming of combines.

Moreover, the speed and scope of the effort of combine forming in 1978–9

shows that the restructuring was not preceded by thorough calculations of the optimum sizes of enterprises. This is particularly apparent in the many cases where VVBs were merely converted into combines of the same name. Independent VEBs, regardless of whether they are small or large, frequently continue to exist, and genuine mergers between enterprises within a combine are rare. However, there are also positive exceptions, especially in the sector of micro-electronics (e.g., the combines of Robotron, Micro-electronics). Moreover, it should not be overlooked that a high degree of concentration also has its disadvantages: there is no compulsion to utilize the results of research and development to improve procedures and innovate products. Furthermore, the monopoly position of many combines, as well as of individual combine enterprises, make efficiency comparisons between enterprises impossible, thus limiting the possibilities for director-generals to obtain information on the optimum capabilities of the production units.

Considerations on Performance Assessment

In connection with the targets of saving material, increasing quality, and improving the production in accordance with requirements, the assessment of the performance in planning and accounting becomes the "key problem" (Honecker).¹³ As long as the production performances are primarily assessed on the basis of gross production values, the enterprises are inclined to fulfil the plan by using larger quantities of material and relying on material-intensive supplies. In this connection it is demanded to reverse the trend of increasing material consumption within the overall social product. The "ineffective co-operation within and outside the combines" is also pointed out. It is furthermore criticized that the dependence of the premium fund on the over-fulfilment of the indicators "goods production" leads the material interests of the collective enterprises primarily towards the quantitative development of production but neglects the meeting of requirements and its qualitative aspects. The priority given to the indicator "industrial goods production" also leads to contract backlogs and stocks in excess of plans.¹⁴

Although it is regularly emphasized that "industrial goods production" will continue to be one of the decisive index numbers of socialist planning, there are indications of experiments with additional indicators and of discussions about their use.

On the basis of a Ministerial Council decision, the usability of the indicator "final product" is being tested in planning and accounting.¹⁵ Since 1 January 1979 the combines directly subordinated to the ministries of industry have been planning and calculating the final product for their area of responsibility. In simple terms, the final product is the industrial goods

production of a combine less the supplies for material consumption between the enterprises of the combine. The use of this indicator as a criterion for performance assessment is to prevent the blowing up of the goods production by turnovers within the combine.

However, due to the limitation to relations within the combine, the final product insufficiently reflects efforts to reduce material consumption. The Ministerial Council has therefore decided, starting from March 1980, to use the indicators "net production" and "basic material costs per 100 M production of goods" for the management, planning, accounting, and for the evaluation of the output. This is intended to cause a reduction of the total costs—i.e. not only within the sphere of the combined works—in an effective way. The extent to which this extension of the indicator catalogue is combined with the formation of the stimulation pools of the works, is unknown.

The USSR's new concepts for planning and stimulation are, of course, also discussed in the GDR.¹⁶ With reference to Soviet experience it is proposed, in particular, to introduce the index number "production according to contract" as an essential yardstick for assessing performance. The overall trend seems to be to assess performance by primarily using a whole system of index numbers. This is without doubt the right thing to do in view of the differentiating problems of efficiency assessment, but this system is complex and clumsy when an order of priorities for individual and overall economic targets has to be established.

Price Policy Measures

Changes of Industry Prices According to the Plan

Since 1973–4 the GDR has been confronted with the question whether, in the long run, to shield its economy from the effects of the considerable price increases for raw material imports as well as price increases for domestic raw materials by paying subsidies. A decision was taken in favour of price increases with the declared objective of inducing the enterprises by means of the higher prices to show greater economy in their consumption of raw materials.¹⁷ The processing industry is no longer allowed to pass on the higher prices for the production material to the consumers: they are to be offset by savings and—where this is not possible—balanced by reducing profit transfers to the State budget or even by subsidies.

If one looks at the ordinances on price increases in industry according to plan, it is apparent that these changes have been made in a logical time order:

Industrial price increases according to plan in the GDR

1 January 1976

Raw materials and raw material-intensive products:

Oil; electric energy; gas; solid fuel; building material; metallurgical products; dead-mould-casting products; potassium products; leather products; raw material for the glass and ceramics industries.

1 January 1977

Semi-finished products and spare parts:

Metallurgical products; chemical products; wood; building material; wool; cotton; glass ceramics; engineering products; projecting works.

1 January 1978

Special chemical products; machines and equipment; spare parts:

For example: pharmaceutical products; paints; fibres; tissues; leather products; plastic products; machines and equipment.

1 January 1979

Construction and assembly works, finished products:

For example: building material; construction works; products of the textile and clothing industry; artificial leather and leather products; furs; ceramics; iron, sheet, and metal products; electro-acoustic and electronics products; charcoal; hop; bristles; machines and equipment; transport tariffs.

1 January 1980

Raw materials and raw material-intensive products:

Oil; electric energy; gas; thermal energy; solid fuel; products of primary oil processing; synthetic coal processing; iron and steel metallurgy.

Source: Doris Cornelsen, *Außenwirtschaftliche Belastungen mindern Wachstumschancen — Zur Lage der DDR-Wirtschaft an der Jahreswende 1979–80. Wochenbericht des DIW* No. 6 (1980) 63.

In 1976 price increases were limited to raw materials and raw material-intensive products, followed a year later by semi-finished products and products of the first processing stage. At the beginning of 1979 the wave of industrial price increases had reached the finished products.

During all these years, as a result of the principle of constant consumer prices, the changes in industrial prices according to plan applied only to certain customer sectors. Detailed directives excluded especially price increases affecting the population.

The extent of the price increases is not known. However, the price wave

was reflected in the accounting results of the State budget.¹⁸ In 1976, the first year of the price changes according to plan, net profit transfers by the enterprises decreased; at the same time a price-balancing possibility in the form of a new expenditure item was created for those enterprises which were unable to balance their cost increases by saving material or by reducing their profit transfers. Moreover, consumer subsidies were increased in 1976 and 1979 (budget plan).

The most recent directives on industrial price changes according to plan show that a further price round has already been initiated. Higher prices for raw materials and raw material-intensive products became effective as from 1 January 1980. Affected is about the same group of goods with which the first price round was started in 1976, and a moving on to the following processing stages is probable. There is no foreseeable end to this development. It seems likely that the raw material prices established in 1979 for the period from 1 January 1980 are already no longer in line with conditions on the world market.

For the production sector this switch to price increases according to plan is in keeping with the urgent necessity to adapt the distorted cost structure of the GDR's economy to the conditions of shortage. However, the reduction of material consumption is limited by the fact that the alternative possibility of reduced profit transfers or subsidies exists at least for part of the products.

Price Policy at the Consumer Level

Until recently the principle of constant consumer prices was predominant in the GDR's economic policy.¹⁹ This principle was modified in 1979—and this seems to have been the most important economic policy decision for a long time.

In the autumn of 1979 prices of some industrial goods—especially products of the textile and clothing industry—were abruptly, and in some cases substantially, increased. It is true, however, that some extremely high price increases were rapidly cancelled. A new price-policy principle was then announced at the 11th Meeting of the Central Committee of the SED in December 1979:²⁰ prices for basic consumption goods remain stable; however, prices for new products with a higher consumption value will be established in relation to the costs. Already in the past, when a policy of constant consumer prices was pursued for many years, price changes for consumer goods had been made. However, they were justified with product changes and shifts in the range of goods. Now the extent of price increases justified in this way will probably grow.

This change in price policy was presumably the result of the planned price

increases at the level of enterprises. In 1979 the wave of price increases reached the finished products. To balance this, higher subsidies were required and some of the products no longer yielded the tax income formerly connected with them. Therefore, a discussion on a long-term price policy did not come as a surprise. Moreover, it appears certain that the price changes are also connected with the problems regarding the use of the goods, with which the GDR will be confronted in the long run: as long as the production increase has to be used primarily for increasing exports, price increases also syphon off purchasing power.

The effects of these decisions on the consumer price level are still uncertain. Up to now the goods for basic requirements were not only sold at constant prices but these prices were also kept low by subsidies. The major part of industrial consumer goods and fine foods is subject to a consumer tax, the "product-bound tax". From the revenue of the State and the related retail trade turnover it can be concluded that the tax is high, on average more than 100% of the factory prices.²¹

In view of this high level of prices it is doubtful where further price increases can be applied without angering the population. It seems that the special high-price shops (*Delikat* for foodstuffs and *Exquisit* for industrial consumer goods) are to be extended, and thus a split-price system will be established. Some figures show that the proportion of these special shops in the whole retail trade has increased from 1.5% to 6%.

III. Summary

The realization of the Five-Year Plan 1976–80 has been different from what was expected when it was prepared. At that time the optimism of the early 1970s prevailed; the burdens on foreign trade were underestimated. During the current Five-Year Plan the growth of industrial production, for instance, was to increase to more than 6% per annum, in 1980 it was even to be 6.6%. In reality, only an average of just 5% was reached, and economic growth has tended to slow down instead of accelerating.

The changes in the economic organization, the experiments with regard to performance, assessment, and the measures of price policy have the common objective of improving decisive features of the system of the GDR's economy: insufficient productivity, lacking readiness to innovate, and high specific consumption of material.

The improved organization of products, the perfection of performance assessment and economic accounting as well as the careful introduction of economically more reasonable prices permit progress in this direction. It is doubtful, however, whether the decisive functional weaknesses can be

overcome by these measures, and whether the system will be better aligned towards efficiency, intensification, and technical progress.

Notes

1. From the report by the Politburo to the 11th Meeting of the Central Committee of the SED, *Neues Deutschland*, 14 December 1979, p. 5.
2. However, this development was limited by numerous social measures during the same period, i.e. the reduction of the average weekly working hours, the increase of annual leave, and the special benefits for working mothers. Reference is made to the Joint Decision by the Central Committee of the SED, the Executive of the FDGB (trade union), and the Ministerial Council of the GDR regarding further planned improvements of working and living conditions of the working population during the period 1976–80, dated 27 May 1976. *Neues Deutschland*, 29/30 May 1976, p. 1.
3. E. Honecker, 11th Meeting of the Central Committee of the SED, *Neues Deutschland*, 14 December 1979, p. 6; O. Luck, Eine Gretchenfrage der Ökonomie: Wie halten wir's mit dem Material?, *Neues Deutschland*, 11 December 1979, p. 3.
4. M. Melzer, A. Scherzinger, and C. Schwartau, Wird das Wirtschaftssystem der DDR durch vermehrte Kombinatbildung effizienter?, *Vierteljahrshefte zur Wirtschaftsforschung des DIW*, No. 4 (1979).
5. G. Mittag, Vorzüge des Sozialismus für höhere Effektivität nutzen, *Einheit (Unity)*, No. 9/10 (1979) 938.
6. From the report by the Politburo to the 8th Meeting of the Central Committee of the SED, *Neues Deutschland*, 25 May 1978, p. 4.
7. G. Mittag, Vorzüge des Sozialismus für höhere Effektivität nutzen, *Neues Deutschland*, 26/27 August 1978, p. 3.
8. See Melzer *et al.*, *op. cit.*, p. 369.
9. A. Scherzinger, Zur Planung, Organisation und Lenkung von Forschung und Entwicklung in der DDR—Aspekte des wissenschaftlich-technischen Fortschritts, *Sonderhefte des DIW*, No. 116 (1977) 148.
10. Erste Durchführungsbestimmung zur Verordnung über die Leitung und Durchführung des Außenhandels—Eigengeschäftstätigkeit, *GBP. der DDR*, Teil I (1978), 17 November 1978, pp. 443 et seq., as well as H. Engler and D. Maskow, Die Verwirklichung des Außenhandelsmonopols bei der Wahrung von Außenhandelsaufgaben durch Kombinate, *Wirtschaftsrecht (Economic Law)*, No. 1 (1979) 21 et seq.
11. Verordnung über die volkseigenen Kombinate, Kombinatbetriebe und volkseigenen Betriebe vom 8. November 1979, *GBP. der DDR*, Teil I, No. 38, 13 November 1979, p. 355.
12. E. Honecker, *Die nächsten Aufgaben der Partei bei der weiteren Durchführung der Beschlüsse des IX. Parteitages der SED*, Berlin (East) 1980, p. 42.
13. *Ibid.*, p. 41.
14. M. Melzer and A. Scherzinger, Wirtschaftssystem der DDR im Umbau? Wirtschaftsführung toleriert verstärkte Diskussionen, *Vierteljahrshefte zur Wirtschaftsforschung des DIW*, No. 4 (1978) 389 f.
15. P. Hoß, Was ist Endprodukt—wie wird es geplant? *Die Wirtschaft (The Economy)*, No. 1 (1979) p. 18.
16. H.-J. Beyer and H. Schmidt, Intensivierung unter veränderten Bedingungen, *Die Wirtschaft*, No. 2 (1980).
17. F. Matho, Industriepreisgestaltung fördert die Intensivierung, *Einheit*, No. 9 (1975) 1012 et seq.
18. *Haushaltsrechnungen bis 1978 in den Anlagen zu Volkskammerdrucksachen der DDR*. See also: M. E. Ruban and H. Vortmann, Abgeschwächte Expansion des Staatshaushalts der DDR, *Wochenbericht des DIW*, No. 6 (1979) 58 et seq.
19. W. Halbritter, Die Preispolitik des sozialistischen Staates zur Verwirklichung der Politik des IX. Parteitages der SED, *Sozialistische Finanzwirtschaft*, No. 9 (1979) 12.

20. E. Honecker, 11th Meeting . . . , loc. cit., p. 5.
21. M. E. Ruban and H. Vortmann, Staatshaushalt der DDR im Zeichen außenwirtschaftlicher Belastung, *Wochenbericht des DIW*, No. 5 (1978) 54.

La Réforme Economique Hongroise: Analyse et Evolution, 1968–1978

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La réforme économique hongroise semble être, aux yeux des observateurs, celle qui a entraîné les plus grandes modifications dans le système de gestion de l'économie centralement planifiée. Aujourd'hui encore, alors que les expériences analogues qui se sont déroulées dans les pays voisins ont fait long feu, la Hongrie aborde les années 80 en maintenant les grands principes définis lors de la mise en place de la réforme de 1968.

Certes, on a pu constater certaines distortions entre la volonté affichée de modifier le système de gestion et la réalisation de ces objectifs. Egalement, tout au long de la décennie qui s'est achevée, on a constaté des mouvements partiels de recentralisation. Enfin, l'expérience de la réforme économique hongroise ne constitue pas encore, à proprement parler, un modèle alternatif au modèle classique de type soviétique¹⁵. Cependant, elle s'est orientée dans une voie spécifique et cette expérience pourrait être suivie par d'autres pays socialistes cherchant à surmonter les carences de plus en plus grandes de la planification centralisée.

Dans cette communication, nous nous proposons de présenter rapidement les caractéristiques du système de planification centralisée tel qu'il s'est développé en Hongrie en montrant les contradictions auxquelles il a mené et qui ont entraîné sa modification. Dans une seconde partie nous analyserons les fondements de la réforme en présentant les principaux domaines sur lesquels elle s'est appliquée ainsi qu'en précisant la démarche qui a présidé à la réflexion des réformateurs.

Dans une dernière partie, nous nous intéresserons plus particulièrement à la mise en oeuvre de la réforme ainsi qu'à la dynamique qui a été induite par son application, au niveau de la politique économique ainsi qu'à celui des structures. Nous analyserons les nouvelles contradictions qui se sont fait jour tout au long de la décennie. Enfin, en conclusion, nous tenterons de dégager un bilan de cette expérience qui se poursuit, au seuil des années 80, dans des conditions tant domestiques qu'internationales fondamentalement modifiées.

I. La Mise en Place et le Fonctionnement de la Planification Centralisée

Comme le souligne l'économiste F. Janossy,⁵ les hongrois, comme les autres peuples d'Europe centrale, ont reçu "en cadeau" un système social calqué à l'identique sur celui qui s'était développé en URSS dans un cadre économique, historique et social différent.

Les Caractéristiques du Modèle de la Planification Centralisée

Aux yeux des communistes hongrois, le fait d'accepter le modèle de la planification centralisée représentait l'économie d'une expérimentation de plusieurs années. Il s'agissait donc de mettre en place un système de gestion qui avait fait ses preuves ailleurs⁹ mais qui était aussi impossible de remettre en cause.

Les principales caractéristiques de ce modèle peuvent être résumées comme suit:

- nationalisation des principaux moyens de production;
- gestion du système productif par le biais d'une structure organisationnelle verticale et par un système d'injonctions en provenance d'un seul centre de décision.

A l'origine, le modèle centralisé procède d'une triple démarche. La première tient aux prémisses théoriques du socialisme qui préconise la centralisation du système productif et qui entend substituer la projection ex-ante de l'output et de l'allocation des ressources à la régulation par des mécanismes de marché.

Parallèlement à cette approche doctrinale, la centralisation procède de raisons pragmatiques: la "direction de branche" se révèle plus adéquate, notamment dans le cadre de l'économie de pénurie: l'incitation provenant d'un seul centre, par branche, apparaît comme étant plus efficace que l'incitation micro-économique qui suppose, au préalable, sinon l'abondance, tout du moins la possibilité de choix alternatifs en ce qui concerne la localisation des activités ainsi que les techniques disponibles.

Enfin, la structure verticale du système de gestion se trouve ainsi en harmonie avec la structure du pouvoir politique.

La Politique d'Industrialisation durant les Premiers Plans Quinquennaux

L'objectif prioritaire de l'industrialisation se trouve servi par la structure verticale du système de gestion. En effet, une telle organisation économique permet de mobiliser les facteurs de production autour des objectifs planifiés.

Mais l'expérience de l'industrialisation qui s'est déroulée en URSS nécessitait certains préalables qui, nous le verrons, n'étaient pas tous réunis dans le cas de l'industrialisation en Hongrie.

F. Janossy énumère les différents préalables qui ont permis de développer l'industrialisation forcée en URSS:

—la demande de la population était extrêmement réduite et la population après la première guerre mondiale et la guerre civile, était capable de grands sacrifices.

—L'agriculture, alors qu'elle fournissait l'industrie en force de travail, était capable d'approvisionner la population (même à un niveau temporairement bas).

—Les ressources naturelles du pays étaient grandement suffisantes pour fournir les besoins de l'industrie en matières premières et en énergie.

—En raison des grandes ressources, les exportations de matières premières pouvaient payer les importations de machines et d'équipements. Ce modèle d'industrialisation introduisait une dichotomie presque totale entre, d'une part, le secteur industriel travaillant dans l'industrie lourde et, d'autre part, le secteur—réduit à sa plus simple expression—de l'industrie légère. Ainsi, la production énergétique, l'extraction de charbon et du minerai de fer et les transports, approvisionnaient l'industrie de guerre, alors que, par ailleurs, l'industrie était à peine capable de fournir le juste nécessaire à la population ainsi qu'à l'agriculture.

Si nous faisons ainsi référence à l'expérience soviétique, c'est qu'elle eût un certain nombre de conséquences sur l'industrialisation socialiste en Hongrie. En effet, si l'on suit la typologie proposée par F. Janossy, la situation était la suivante en Hongrie, au seuil de l'industrialisation:

—Le niveau de vie de la population hongroise, avant la seconde guerre mondiale, était plus élevé que celui de la population soviétique avant la première guerre mondiale. Les besoins de la population étaient également plus élevés et s'accroissaient rapidement.

—L'agriculture pouvait approvisionner le marché.

—Les ressources naturelles étaient loin d'équilibrer les besoins de matières premières de l'industrie. Les importations de matières premières se sont accrues en raison du développement industriel.

—Bien qu'une certaine fraction des importations nécessaires pour le développement de la technologie moderne fussent couvertes temporairement par l'exportation de produits agricoles, celles-ci étaient loin de pouvoir couvrir totalement les besoins.

Cependant ceci n'empêchait pas les responsables politique d'accélérer le rythme de l'industrialisation.

Elle fût précédée, dans une premier temps, par la reconstruction des capacités de production détruites pendant la dernière guerre. Ensuite, la nationalisation des principaux moyens de production fut entreprise et toucha rapidement la quasi-totalité du système productif. En 1949, le secteur d'État contrôlait 99% des mines, des industries et des transports. Parallèlement la gestion économique se déplace du niveau de l'entreprise à celui de la branche et c'est durant cette période que se mettent en place les organes de la gestion étatique, tant fonctionnels (Office du Plan, Banque nationale...) que sectoriels (les ministères de branche): les unités subalternes sont dépossédées de leurs anciennes prérogatives et elles ne peuvent agir que dans le cadre d'un système purement administratif.

C'est avec le démarrage du premier plan quinquennal 1950-54 que commence l'industrialisation forcée. Cette dernière repose sur deux critères: la primauté accordée à l'industrie lourde, d'une part, et au taux d'accumulation, de l'autre. Le taux d'investissement qui avait déjà doublé durant la période de reconstruction par rapport à la période d'avant guerre représentait 25% du Revenu National. Il était principalement orienté vers l'industrie d'extraction et la métallurgie lourde au détriment des autres secteurs. A la suite des premiers succès enregistrés dans la réalisation de ces objectifs, un processus de révision permanente en hausse des objectifs se mit en place et qui eut pour résultat l'accroissement du taux d'investissement sans que celui-ci soit économiquement justifié. Mais ce qui prévalait alors, selon les dirigeants de l'époque, c'était de faire de la Hongrie une "terre de fer et d'acier".

Les Réformes Partielles et Successives du Système de Gestion

C'est après 1956 que l'on procéda à des modifications partielles du système de gestion ainsi qu'à des infléchissements de la politique économique. On a introduit, parallèlement à la planification en termes physiques, des éléments de planification en valeur. Les indices du plan contenaient des éléments d'appréciation plus complexes. On introduisit, au niveau de l'entreprise, la notion de profit. Il s'agit d'un profit comptable; par ailleurs les entreprises devaient prendre en compte, dans la fixation des prix, les éléments des coûts de production supportés effectivement par l'entreprise. Par contre, on ne toucha pas aux principes généraux d'élaboration du plan ni à ceux concernant la transmission des directives aux instances subordonnées. On a simplifié et rationalisé les instructions transmises aux entreprises. En 1963 un regroupement d'entreprises réduisit le travail des planificateurs; par ailleurs, ce regroupement horizontal entraînait, de fait, un déplacement du système de décision vers certaines grandes entreprises.

Dans la même période, la politique agricole fut l'objet de l'attention des dirigeants qui réalisèrent la recollectivisation des terres après l'explosion des structures agraires à la suite du soulèvement de 1956. Contrairement à ce qui s'était passé antérieurement, les dirigeants des coopératives furent choisis en fonction de leurs compétences professionnelles et non en fonction de critères politiques. Par ailleurs, outre les subventions gouvernementales, l'Etat a relevé le prix des livraisons obligatoires en 1961, avant de supprimer définitivement ces dernières en 1965. Il s'en suivit incontestablement une amélioration de la condition paysanne. Ce résultat positif eut deux conséquences. La première, politique, fut de créer un climat de confiance parmi la paysannerie envers l'équipe Kadar. En second lieu, ce succès permit, par la suite, de consacrer les efforts des responsables de la politique économique sur le secteur industriel.

Dans le domaine des prix, des réformes partielles furent entreprises et eurent pour conséquence de préparer, à la fois sur le plan pratique et sur le plan théorique la réforme d'ensemble du système de gestion¹⁴. Dans la planification administrative, les prix remplissent avant tout une fonction comptable. Ils ne reflètent pas les phénomènes de rareté ni la demande. Au contraire, ils expriment les préférences étatiques et ils traduisent la structure d'offre de l'appareil productif.

Par ailleurs, le système de prix en vigueur dans la planification administrative est un système de prix-valeur. Dans ce système de prix, on comptabilise l'ensemble des dépenses en travail. Ce système présente l'avantage, certes, d'être en conformité avec la théorie marxiste mais elle évacue, en fait, la prise en compte des dépenses en capital. Ce système ne permet pas l'évaluation des dépenses en capital dans la production, de même, il ne permet pas d'impulser la substitution du capital au travail, donc d'accroître la compétitivité. On a progressivement modifié la structure du système de prix ainsi que les principes de détermination des prix. En premier lieu, on a introduit, dans la formation de prix une marge de profit; ensuite, on a modifié le système de prix-valeur en un système dit de prix de production. Dans ce système, on prend en compte, simultanément, les dépenses en capital et les dépenses en travail dans la formation des prix.

Mais la fixation centrale des prix par les autorités présente, aux yeux des responsables de la politique économique, de pouvoir contrôler ex-ante l'équilibre entre les valeurs et les prix: en fonction de ses préférences l'Etat peut attribuer des prix à certains types de biens qui soient en-dessous ou au-dessus de leurs coûts de production. Mais, comme en fin de circuit, il doit y avoir équilibre entre les valeurs—exprimées en dépenses de travail— et les prix, ceci autorise l'Etat à se servir de la politique des prix comme déflecteur au gré de ses choix politiques. Ce faisant, cette démarche contribue à maintenir la structure de prix d'offres.

Paradoxalement, c'est à partir de la question des prix, durant les années soixantes que va s'accélérer le mouvement de la réforme. Entre temps, la référence à des outils plus sophistiqués tels que les modèles Input-Output, l'utilisation de modèles de programmation linéaire, permettront aux économistes de se démarquer de l'ancienne démarche orthodoxe dans le domaine de la détermination des prix.

II. Les Principes de la Réforme du Système de Gestion

C'est dans des conditions politiques favorables que la réforme fut entreprise. Au plan politique, le kadarisme caractérise une approche réaliste et pragmatique des problèmes. Dans ce pays, les discussions concernant la réforme n'ont pas données lieu à un *aggiornamento* théorique comme dans les pays voisins. Les responsables en vinrent à la conclusion que les réformes partielles n'étaient désormais plus suffisantes notamment dans le but d'enrayer la baisse d'efficacité marginale du capital, les défaillances du système de prix et la stagnation du revenu national. En d'autres termes, le système de gestion administrative produisait trop d'effets externes négatifs. C'est donc l'ensemble du système qu'il fallait modifier.

L'idée d'une modification du système de gestion s'est formée très tôt parmi les théoriciens, mais cette volonté réformatrice se heurtait à l'opposition résolue d'une fraction importante de la bureaucratie politique et économique. Cependant, ce n'est que dans les années soixantes que l'on décida d'opérer la réforme du système de gestion. La décision fut officiellement prise par le Comité Central du Parti Ouvrier Socialiste de Hongrie (P.O.S.H.) en 1965. Durant deux années, des économistes, des dirigeants d'entreprises, des planificateurs, des syndicalistes ainsi que des hommes politiques se réunirent périodiquement pour débattre du projet de réforme qui, finalement fut adopté par les instances politiques et entra en vigueur le 1—1—68, sous le nom de Nouveau Mécanisme Economique (N.M.E.).

Les principaux objectifs de la réforme furent les suivants:

- Permettre une allocation plus rationnelle du capital dans les branches, notamment en développant les branches les plus productives.
- Participer à la division internationale du travail.
- Transformer la structure de marché d'offre en une structure capable de prendre en considération l'évolution de la demande.
- Accroître la productivité des facteurs de production; lier les revenus personnels ainsi que ceux des entreprises aux résultats économiques.

En vue réaliser ces objectifs, plusieurs mesures furent prises:

Décentralisation des Décision et Rôle des Entreprises

Avec le réforme de 1968 disparaît l'ancien système de planification basé sur les instructions. Ce sont à présent les entreprises qui fixent les quantités à produire. Elles s'approvisionnent directement en inputs et elles doivent assurer, par des relations de marché, l'écoulement de la production. Les anciens ministères sectoriels sont démantelés. Ceux qui subsistent n'ont plus qu'une fonction de conseil auprès des entreprises, notamment dans l'orientation de leurs choix d'investissement. S'ils ne leur délivrent plus d'instructions obligatoires, par contre les ministères nomment toujours et ont le pouvoir de révoquer les trois premiers dirigeants des entreprises qui se trouvent sous leur juridiction. Ils détiennent ainsi, par ce moyen, un pouvoir de contrôle relativement important. Parallèlement, les ministères fonctionnels prennent une place plus importante en se substituant, par l'intermédiaire des régulateurs indirects, aux anciennes fonctions de contrôle des Ministères de branche. A travers la décentralisation des décisions on entend impulser une dynamique microéconomique.

Les Régulateurs Financiers et des Salaires

Les régulateurs sont les instruments de contrôles indirect de l'activité économique. De façon normative, ils associent les préférences étatiques et les résultats de l'entreprises. Ils constituent une clé de partage qui permet l'allocation du surplus entre d'une part, l'Etat et l'entreprise et, d'autre part, au niveau de l'entreprise, entre le fonds d'investissement et le fonds de salaires.

Dans les deux cas, le Centre peut modifier en fonction de la conjoncture les différents taux d'imposition qui frappent le capital et le travail et réguler ainsi les flux de revenus des entreprises.

Le Système de Prix et la Nouvelle Politique des Prix

Le système des prix peut être considéré comme la clé de voûte de la réforme car il ne saurait y avoir ni système de décision cohérent au niveau de l'entreprise ni régulation indirecte des salaires et des profits sans un système rationnel de prix.

Le principe retenu pour déterminer les prix est celui du système dit des prix de production à plusieurs canaux. Dans un tel système, les prix doivent refléter simultanément les proportions des dépenses en capital et en travail contenues dans les coûts de production. En outre, le profit (le produit social net) doit représenter cette proportionnalité afin de rémunérer les facteurs de production. La notion de dépense de travail est plus large que la simple

dépense de travail entraînée lors d'une activité productrice donnée; elle prend en considération les éléments du coût social de la production, i.e. les dépenses sociales entraînées par la formation des travailleurs et les autres catégories de salariés. En outre, on y ajoute le coût des assurances sociales.

Parallèlement à ce nouveau type de détermination des prix, on entend faire jouer un triple rôle aux prix planifiés. En effet, ils doivent exprimer, selon les vœux des responsables de la politique économique, les préférences étatiques, les dépenses en inputs au niveau de la branche ainsi que la demande.

Cette triple exigence n'a pu se réaliser, concrètement, que par la mise en place d'un système de prix évoluant dans certaines limites. Ainsi a-t-on défini plusieurs catégories de prix: les prix fixes, les prix libres, les prix-fourchettes évoluant entre un minimum et un maximum. Cette volonté du gouvernement de contrôler le mouvement des prix était motivée essentiellement par deux raisons:

—en premier lieu, par la volonté d'éviter le dérapage des prix par la libération de tous les prix;

—en second lieu, bien que l'on ait voulu lier rémunération et productivité, on a néanmoins déconnecté une partie de la politique des revenus du fonctionnement du N.M.E.. Ainsi, par exemple, les prix des biens de consommation courante furent fixés centralement et leur évolution suivait celle des revenus. Par contre, dans les domaines où l'offre était suffisamment grande, comme pour les fruits et légumes, par exemple, les prix étaient libres.

Un autre objectif était assigné à la politique des prix. Il s'agissait d'unifier le niveau des prix en réduisant l'écart entre les prix à la production et ceux à la consommation. Ce faisant, par cet intermédiaire, on tentait d'unifier le système fiscal qui, jusqu'ici reposait sur le principe des "ponts financiers". En d'autres termes, l'Etat levait ses impôts par l'intermédiaire de taxes sur la production. Le principe de taxation n'étant pas homogène, il se trouvait que le système de taxation tolérait plus de 2000 taux différents, certains positifs (impôts), d'autres négatifs (subventions)! La recherche de la transparence par l'intermédiaire de la réforme des prix nécessitait, sinon la suppression de ce système anarchique, tout du moins la réduction de l'ampleur du système de taxation. On le réduisit à quelques centaines de taux, conservant, pour des raisons d'équilibre, un grand nombre d'exceptions. Au cours de l'application de la réforme on verra que cette contrainte pèsera sur le comportement du système de prix.

Les Multiplicateurs du Commerce Extérieur

Les réformateurs ont placé l'insertion de l'économie hongroise dans la

division internationale du travail comme un de leurs objectifs prioritaires. Cette volonté est rendue d'autant plus nécessaire que la part du commerce extérieur dans le Revenu National avoisine près de 50%, la Hongrie étant dépourvue presque totalement de ressources naturelles. Par le biais des multiplicateurs du commerce extérieur, on exprime la valeur moyenne en forint des inputs nécessaires pour obtenir une unité de monnaie étrangère à travers les exportations.

L'ensemble de ces principes fut mis en oeuvre le 1 Janvier 1968.

III. La Mise en Oeuvre et la Dynamique du N.M.E.

Dans l'esprit de ses initiateurs, la réforme du système de gestion ne modifie pas sensiblement la nature de l'économie planifiée. Dans un certain sens, la réforme peut être considérée comme un réarrangement à l'intérieur d'un système donné plutôt qu'une inflexion brutale du système. Dans de telles conditions, l'introduction du profit, la prise en compte de la demande dans la détermination de la production ne sauraient être considérées comme étant incompatibles avec les objectifs de l'économie planifiée. Cette dernière, au contraire, intègre les éléments du marché dans le plan. Cependant, le processus économique qui résulte de cette combinaison n'est pas sans induire certains dysfonctionnements dans le système; de même que des contraintes d'ordre externes influeront le déroulement de l'activité économiques.

Le Domaine d'Application de la Réforme

On a précisé que les réformateurs s'étaient entourés d'un certain nombre de précautions afin d'éviter l'apparition de mouvements difficilement contrôlables. On a signalé, notamment, que la politique des revenus avait été partiellement déconnectée du champ d'application de la réforme. Socialement, il n'était pas pensable, pour les responsables politiques, de tolérer l'apparition d'un volant de chômage, même si le droit de licenciement était reconnu aux chefs d'entreprises et si théoriquement, dans le N.M.E., les entreprises pouvaient faire faillite.

Par ailleurs, des secteurs entiers se sont trouvés à l'écart de la réforme tels que les transports, l'énergie, les communications ainsi que les services publics: santé, culture, etc.

Dans des domaines déterminants, tel que l'investissement, les prix, etc, l'Etat a conservé des moyens de contrôle direct. Dans le cas de l'investissement, environ 50% des investissements totaux sont réalisés par l'Etat qui, par cet intermédiaire influe directement sur l'activité économique. Dans le domaine des prix, la manipulation continue du système des prix est un moyen efficace d'exercer un contrôle central sur les décisions des entreprises.

La Politique Economique de la Réforme

Dès les premières années de sa mise en oeuvre le N.M.E. a donné des résultats appréciables dans de nombreux secteurs de l'activité économique. En outre, le nouveau mécanisme a insufflé un certain dynamisme qui s'est traduit par la hausse régulière du taux de croissance. Mais la double régulation, directe et indirecte, qui résulte du compromis entre mécanismes de marché et gestion administrative a entraîné des phénomènes induits.

Dans le domaine de l'emploi, contrairement aux craintes initialement formulées par les responsables de la politique économique, on a constaté une forte mobilité des travailleurs, ce qui traduit la pénurie de main-d'oeuvre dans ce secteur. Parallèlement, dans le domaine de la répartition on a constaté très rapidement une redistribution privilégiant des couches sociales telles que les managers, les paysans, les employés, au détriment des ouvriers.

Dans le domaine de l'investissement, très rapidement s'est développée une politique de surinvestissement de la part des entreprises. On a attribué ce phénomène aux anciens comportements qui avaient cours dans la planification centralisée. Mais il faut plutôt y voir une attitude nouvelle des entreprises face aux possibilités qui leur étaient offertes par les autorités. Entre autres conséquences, cette politique entraîna un accroissement du coût de l'investissement ainsi qu'une détérioration de la balance des paiements.

Partagés entre la volonté de maintenir les principes de la réforme, d'une part, et l'obligation de stabiliser le processus économique, d'autre part, les responsables de la politique économique combinèrent des mesures indirectes et administratives.

Dans le premier cas, l'Etat se sert des moyens de la régulation indirecte pour orienter la croissance ou influencer telle ou telle variable de l'activité économique. Par exemple, au régulateur des salaires, on a adjoint le principe de la taxation progressive de la masse des salaires versés par les entreprises afin de pénaliser les entreprises utilisant trop de main-d'oeuvre; de même on a introduit des éléments de différenciation dans la taxation des entreprises en fonction du taux de profit réalisé dans les branches.

Dans le cas de la régulation administrative, il s'agit de mesures de recentralisation partielle de certaines décisions qui avaient été dévolues aux unités micro-économiques, telles que l'intervention du Centre dans la décision d'investir ou bien de certaines mesures concernant les prix. Dans ce dernier exemple, la manipulation des prix fait partie d'un ensemble de mesures prises par le Centre dans le cadre de négociations quasi permanentes avec les entreprises. Par ailleurs, comme l'a montré D. Granick⁴, les entreprises n'ont pas montré beaucoup de difficultés à accepter cette procédure dans la mesure où pour elles, également, la question des prix n'était qu'un aspect de la négociation entreprises-Etat. Mais ce sont les mesures brutales d'ajustement

qui sont les plus significatives. Afin d'éviter le développement d'une inflation rampante pouvant mener, à terme, à l'apparition de mouvements centrifuges des prix.

Mais l'ajustement brutal s'apparente, en fait à forme d'inflation "planifiée" puisqu'elle consiste en la modification des prix relatifs en un seul mouvement. Mais, au lieu que se soient les forces du marché qui expriment les modifications entre les prix relatifs, c'est l'autorité centrale qui procède de son chef à ce réajustement. Par ailleurs, le système de prix en oeuvre, basé sur le système dit "cost-pricing", exprime plus ou moins arbitrairement, comme le souligne B. Csiskos-Nagy,³ le profit réalisé par les branches. Les normes servant à déterminer le profit ne contribuent pas à exprimer l'efficacité des branches. Au contraire, toujours selon l'analyse du Secrétaire d'Etat aux prix, le système de prix en vigueur permet à certaines entreprises de privilégier l'utilisation de matériel coûteux puisque le système normatif de formation des prix conduit, en fait, à créer un profit additionnel caché. Parallèlement, on a introduit une politique de subvention de certaines catégories de prix, conduisant, en fait à un système de prix à deux niveaux inversé: ainsi les prix de production se trouvaient être supérieurs aux prix à la consommation. Par ailleurs, toute modification de prix, notamment de ceux concernant les biens de consommation s'accompagne obligatoirement d'un relèvement des salaires et des traitements des catégories sociales les plus défavorisées, ce qui, à son tour, entraîne un accroissement des dépenses budgétaires.

Il s'en suit donc une politique contradictoire qui privilégie la stabilité du mouvement des prix au détriment de l'efficacité initialement recherchée à travers la réforme du système de prix.

Dans un autre domaine, l'investissement, la politique poursuivie est également caractéristique de cette double démarche.

En ce qui concerne la politique d'investissement, les tensions qui se manifestent dans ce domaine sont à rechercher dans les comportements des décideurs: l'Etat, les Ministères de Branche, les entreprises. L'Etat réalise 50% de l'investissement total. La moitié sont des investissements directs. Ce sont des investissements qui, par leur volume, leur intérêt régional ou national ne peuvent être pris en charge que par l'Etat, tels la construction de raffineries, de centrales thermiques ou atomiques, de cimenteries, etc. . . . L'autre moitié des investissements financés par l'Etat, outre les investissements en infrastructures ou dans le secteur public, concerne ce qu'on appelle "les groupes d'investissements", c'est à dire des investissements décidés centralement mais à la réalisation desquels participent simultanément des entreprises appartenant à différents secteurs. En quelque sorte, c'est un moyen d'orienter l'activité des entreprises vers des choix macro-économiques. La stratégie des Ministères de Branche est sensiblement

différente. Ces derniers n'ont, en théorie, qu'une fonction de conseil auprès des entreprises. mais ce sont les Ministères qui doivent approuver les décisions d'investir des entreprises et signer le document qui leur permet d'inscrire le projet d'investissement au plan et, ensuite, de pouvoir recevoir les crédits nécessaire à sa réalisation. Comme dans l'ancien système, l'objectif recherché par le Ministère de Branche est la croissance du stock de capital en terme physique. En effet, les Ministères ont intérêt à développer leur branche afin d'accroître leur puissance et ainsi d'être en mesure de s'assurer les dotations nécessaires en capital pour financer leurs projets. L'efficacité de l'investissement passe au second plan.

La stratégie de l'entreprise se fonde sur des critères différents. En premier lieu, elle est motivée par le coût de l'investissement. La décision d'investir sera fonction, principalement, des possibilités de financement de ses projets partiellement par des subventions de l'Etat. Ensuite elle prendra en considération les opportunités de prêts d'Etat et, en dernier lieu seulement, elle fera appel au système bancaire. Par ailleurs, si le projet d'investissement de l'entreprise rejoint le projet des investissements d'Etat, c'est une opportunité supplémentaire pour l'entreprise de faire financer son investissement par l'Etat. Ce faisant, elle aliène une partie de sa liberté en se mettant dans l'orbite du Centre. D'un point de vue dynamique, ces différents comportements ont donné naissance à un cycle d'investissement qualifié par M. Marrese⁸ de "Centralisme cyclique". Dans un premier temps, on assiste à un gonflement du volume de l'investissement. Pendant cette phase, on démarre de nombreux projets d'investissement. Dans de nombreux cas, la première année durant laquelle le projet est effectivement mis en oeuvre, le projet peut être relativement modeste; quitte à être plus important l'année suivante. Dans la seconde phase du cycle, le processus s'amplifie: en effet, on démarre à nouveau des projets d'investissement durant cette période, en outre, les projets mis en chantier l'année antérieure nécessitent de plus grosses immobilisations car, afin d'être pris en compte, les entrepreneurs avaient systématiquement sousestimé le coût de l'investissement.

C'est dans la phase suivante que le planificateur réagit et qu'il vérifie les nouveaux projets dont le nombre se réduit. Cependant les anciens projets sont toujours en chantier et doivent être financés. Parallèlement le gonflement des projets d'investissement introduit des goulots d'étranglement dans les secteurs travaillant pour l'investissement: secteurs de la construction, de la métallurgie, des transports, de la main d'oeuvre, etc, en introduisant des phénomènes de pénurie relative. L'économie se tourne vers l'extérieur pour s'approvisionner en matériel, ce qui entraîne un déficit de la balance des paiements et la détérioration des termes de l'échange.

Dans la dernière et quatrième phase, le processus de croissance continue des dépenses d'investissement se ralentit: le taux de croissance de

l'investissement décroît, aussi bien le taux planifié que le taux réel. Les nouveaux projets d'investissement sont vérifiés ainsi que les projets en cours. Certains projets commencés antérieurement et qui ne présentent pas d'intérêt sont ralentis et quelque fois suspendus; par-contre la réalisation d'autres projets est accélérée. Dans cette période on s'attache davantage à terminer les projets qu'à effectuer des dépenses nouvelles d'investissements. On rééquilibre la balance des paiements et l'on utilise différemment le revenu national. Le stock d'investissements en cours diminue et l'efficacité du secteur de l'investissement s'accroît à nouveau.

La Structure Institutionnelle de la Planification

Une des caractéristiques de la réforme hongroise est la cohabitation, ou plus exactement la volonté de faire coexister, dans un même ensemble, une structure horizontale, celle du mécanisme de marché et une structure verticale, que nous appelons institutionnelle.

En effet, dans le N.E.M., la structure institutionnelle de la planification perpétue l'ancienne structure qui prévalait au temps de la planification administrative.

En premier lieu, la structure hiérarchisée et monolithique du pouvoir politique s'est maintenue, même si, à l'intérieur de cette structure, le rapport des forces s'est modifié. Dans un certain sens, la réforme peut être considérée comme un changement de majorité à l'intérieur du Parti. On a souvent considéré la réforme comme étant le produit d'une alliance entre une fraction de la bureaucratie politique et les couches technocratiques, les premières déléguant une partie de leurs anciennes prérogatives aux secondes.¹² Il est certain que la réforme n'a pu se faire que par un changement de ligne politique. Inversement, l'ancienne majorité de la bureaucratie politique, s'appuyant sur la bureaucratie ouvrière a difficilement accepté l'idée de la réforme et n'a jamais renoncé au modèle centralisé. Cependant, en terme d'équilibre, la majorité penchait en faveur de la réforme, sans qu'elle ne disposa de tous les moyens pour assurer le succès de son projet.

Ainsi, de 1968 à 1974, il se déroula un long processus instable qui consista à endiguer le développement de la réforme et qui aboutit, en 1974, à la mise à l'écart des éléments les plus réformateurs de la direction politique ainsi qu'à la mise en place de mesures de recentralisation partielle dans le domaine de l'autonomie relative des entreprises. Parallèlement, certaines des anciennes fonctions des Ministères de Branche se sont perpétuées et même développées. Alors que la réforme entendait développer un système rationnel entre les instances macro et micro économiques par l'intermédiaire des régulateurs indirects, les Ministères ont reconquis, au fur et à mesure, leurs anciennes prérogatives.

Dans la planification centralisée, la gestion des unités de production s'opérait au niveau de la branche² par les Ministères qui, par le biais d'instructions détaillées, transmettaient leurs ordres aux unités de production. Dans la planification centralisée, la fonction du Ministère est double car c'est à ce niveau de la pyramide du système de décision que le plan national est fractionné et que les impulsions sont données aux instances inférieures.

L'objectif des Ministères est d'étendre, sur le mode extensif, leurs capacités de production. Cet objectif n'a pas disparu dans le N.M.E. et, par leur comportement, les responsables des Ministères tentent toujours d'accroître leur emprise. La fonction de conseil que chaque Ministère remplit auprès des entreprises leur permet d'influencer les choix des entreprises. En effet, beaucoup d'entreprises, en dépit des opportunités que le N.M.E. leur donne pour maximiser leur profit trouvent plus aisé de se référer au Ministère qui intervient alors directement dans l'orientation et la prise de décision des entreprises. En outre, comme nous l'avons déjà signalé, les directeurs des entreprises sont nommés par les Ministères. Par ailleurs, la majeure partie des directeurs ont fait une carrière dans l'administration; de la sorte, ils connaissent parfois mieux le fonctionnement de l'administration que celui du marché et il leur semble plus facile de négocier des subventions ou bien des prêts à des taux préférentiels que de gagner des parts de marché en vue d'accroître le profit.

Enfin, last but not least, la structure industrielle de l'économie n'a guère été modifiée avec la mise en place du N.M.E. Le système productif hongrois a l'originalité d'être l'un des plus concentrés au monde. La concentration industrielle s'est opérée à l'époque de la planification administrative. Elle n'a pas été modifiée avec l'application de la réforme peut être en raison du type de concentration horizontale qui prédominait dans de nombreuses branches.

Il existe donc de véritables trusts, des monopoles socialistes possédants leur modalités de fonctionnement, échappant à la domination des Ministères et qui ont la possibilité d'imposer leurs propres choix au niveau macro-économique.

Il résulte de tout ceci une certaine inadéquation entre les mécanismes du "marché socialiste" d'une part, et la structure monopolistique de l'économie de l'autre. Peut être il aurait fallu fractionner l'appareil productif en même temps que l'on instaurait le N.M.E., mais c'était une mesure qui serait allée à l'encontre de fractions importantes de responsables politiques et syndicaux.

Cependant cette dualité se trouve être à l'origine d'une double régulation, l'une administrative, l'autre indirecte. Cette structure dualiste apparemment contradictoire peut être maîtrisée par les responsables de la politique économique en fonction des conjonctures particulières que traverse l'économie hongroise.

L'Insertion de l'Economie Hongroise sur les Marchés Socialistes et Capitalistes

En raison de la pauvreté du pays en ressources énergétiques et en matières premières, le Commerce Extérieur occupe une place prépondérante dans l'activité économique du pays.

Pour moitié, le Commerce Extérieur de la Hongrie se partage entre le marché socialiste—le C.A.E.M.—d'une part, et les marchés occidentaux et du tiers monde de l'autre.

Les échanges extérieurs du pays suivent une double orientation. D'une part, il entre dans le cadre des rapports planifiés entre les économies socialistes; de l'autre, il est régulé par la capacité d'offre de l'économie hongroise, ainsi que par le niveau de la demande externe des produits et services hongrois.

Du point de vue de son commerce extérieur, le pays a tiré un certain avantage du N.M.E., notamment à la fin des années soixante et au début des années soixante-dix. A cette époque, l'économie mondiale se trouvait encore dans une phase d'expansion, le niveau des prix mondiaux était relativement stable.

La modification structurelle nécessitée par la compétition internationale s'est développée mais toujours avec un certain retard. Afin de stimuler les exportations, d'une part, et de protéger les prix domestiques de l'autre, le gouvernement a mis en oeuvre une politique de subvention. L'Etat subventionnait la différence entre les coûts domestiques et les prix mondiaux dans le cas des exportations. Inversement, il subventionnait l'importation de la technologie nécessaire à la modernisation des secteurs de l'industrie s'orientant vers l'exportation. Cependant, certains secteurs sont exportateurs nets et ne font pas appel aux subventions; dans un certain sens, ils se trouvent pénalisés par rapport aux secteurs bénéficiant du soutien de l'Etat. C'est pourquoi l'Etat a mis en place, dans la seconde moitié des années soixante-dix, un crédit spécial destiné à favoriser les exportations et auquel les entreprises pouvaient avoir droit à la suite d'une compétition entrées. Par ailleurs des investissements directs en provenance du marché occidental ont pu être réalisés moyennant certaines formes juridiques, notamment dans des branches comme la métallurgie (Volvo, Steiger), le textile (Levy- Strauss Triumph) etc. . . . De même se sont développées des Joint Ventures entre entreprises occidentales et hongroises pour intervenir sur des marchés tiers. Certaines firmes hongroises se sont "internationalisées" en implantant des succursales ou en rachetant des entreprises en Europe occidentale. Enfin, les revenus du tourisme commencent à occuper un poste important dans la balance commerciale du pays.

Mais la contrepartie à l'ouverture de l'économie hongroise au marché international se fait également sentir, en obligeant l'économie hongroise à

intérioriser les flux en provenance du marché occidental, la poussant ainsi à ajuster les prix domestiques aux prix mondiaux. Les hausses des prix des matières premières et des produits énergétiques sont répercutées au niveau des prix domestiques, accroissant les coûts de production internes ce qui entraîne, en fin de compte, la détérioration des termes de l'échange.

Dans le cas du C.A.E.M., il en va différemment, mais la situation n'est pas pour autant plus favorable à la Hongrie. Certes, la capacité d'absorption du marché socialiste, notamment celui de l'U.R.S.S., est très grande. Par ailleurs, les échanges sont planifiés bilatéralement sur plusieurs années. Il s'en suit une plus grande régularité en ce qui concerne les prix ainsi que les volumes de biens exportés et importés. Par contre, l'appartenance au C.A.E.M. est également contraignante pour l'économie hongroise et ceci pour trois raisons:

—La première tient à la rigidité du marché. Les approvisionnements ainsi que la production étant planifiés sur plusieurs années, il est relativement difficile de réorienter la structure et le volume des échanges en fonction d'une modification de l'offre et de la demande.

—Le principe de la spécialisation de chacun des pays du C.A.E.M. accroît la rigidité du marché en réduisant la gamme de choix qui devient plus étroite.

—La fixation des quantités offertes et demandées relève du troc: ce sont les Ministères de Branche qui procèdent à la détermination des quantités en confrontant les offres et les demandes avec chacun des représentants des Ministères autres pays. Les prix sont ensuite fixés par le Ministère du Commerce extérieur. Il n'y a pas obligatoirement concordance entre les prix et les quantités. En outre, cette méthode de fixation des prix va à l'encontre du principe de l'efficacité micro-économique: les prix sont déterminés selon des critères administratifs et sont ensuite imposés aux entreprises qui ont besoin d'inputs en provenance des pays du C.A.E.M. ou bien qui livrent une partie ou totalité de leur production vers les marchés des pays socialistes.

Lorsque les besoins dépassent les quotas planifiés, les quantités supplémentaires sont facturées en dollars. En ce qui concerne les livraisons de produits énergétiques par l'Union soviétique, cette dernière prend en compte, dans la détermination de ses prix, les cours mondiaux rapportés sur une échelle mobile, ce qui provoque également une forte pression sur les prix internes et contribue également à la détérioration des termes de l'échange.

Les Formes du Marchandage dans la Planification Décentralisée

La confrontation et la cohabitation de ces deux structures, institutionnelle et de marché, à pour résultat de maintenir et d'amplifier le rôle du

marchandage dans la planification décentralisée. En effet, le marchandage est le moyen d'accéder à un objectif par un processus externe à celui qui est sensé être la norme: les relations de marché, dans le cas du socialisme de marché; l'exécution des instructions dans le cas de la planification administrative.

Il en résulte que la décentralisation partielle du système de décision a rendu explicite des comportements qui, autrefois, étaient implicites. En plus, la stratégie du marchandage s'est étendue à des sphères plus larges, englobant différents secteurs de l'économie. Au marchandage vertical Centre-Ministères-Entreprises, s'est ajouté le marchandage horizontal s'appuyant sur la coordination de lobbies en vue d'atteindre certains objectifs. Face à la coalition des intérêts qui se forment, le plan n'est plus l'expression d'une volonté centrale qui s'impose à l'ensemble des unités subordonnées. Il se transforme davantage en une structure de coordination d'intérêts particuliers.

Par ailleurs, le développement de la "seconde économie" échappe partiellement au domaine de la planification. Il s'agit de l'ensemble des activités qui ont un statut légal, semi-légal et illégal. Certes, toute économie socialiste est confrontée à ce problème⁶. Ce qui est nouveau, dans le cas de la Hongrie, c'est la part de plus en plus grande que prend ce secteur dans la vie économique et qu'il soit plus ou moins explicitement reconnu. Notamment, dans certains secteurs, la "seconde économie" se trouve en symbiose avec la première économie: la construction (40% des logements de Budapest sont construits privativement), l'agriculture dont le secteur libre approvisionne la quasi totalité du pays en fruits et légumes, plus de la moitié en viande de porc, etc. . . . La "seconde économie" est encouragée dès lors qu'elle décharge l'économie planifiée de certaines fonctions qu'elle n'est pas en mesure de remplir. Cependant l'évolution de la "seconde économie" s'effectue dans des limites tolérées par le gouvernement.

IV. CONCLUSION

Après une décennie de fonctionnement, quel est le bilan de la réforme? Si l'on se réfère aux objectifs initialement retenus par les réformateurs on est très en deçà des résultats escomptés. On a vu les difficultés rencontrées pour l'application de la réforme, provenant de causes structurelles, on a souligné également les phénomènes induits ainsi que le rôle des contraintes externes. Cependant, ne s'en tenir qu'à cet aspect des choses serait une erreur. En effet, d'une façon générale, la réforme a modifié le comportement des agents et a introduit un élément de dynamique dans la société. Le niveau de vie de la population s'est constamment élevé, notamment sur le plan qualitatif et si la pénurie subsiste dans certains secteurs—construction de logements par

exemple—le marché de biens de consommation est régulièrement approvisionné. Dans l'industrie, certaines branches se sont fortement développées et la gestion s'est sensiblement améliorée. Enfin, le consensus autour du kadarisme s'est maintenu et a permis de conserver en ne l'altérant pas fondamentalement, l'esprit de la réforme. Mais la société hongroise ne semble pas encore prête à franchir le pas qui la conduirait vers un véritable socialisme de marché. De ce point de vue, les comportements hérités du système administratif sont encore très présents.

Par ailleurs, il ne faut pas se masquer les difficultés auxquelles l'économie hongroise a à faire face au seuil de cette nouvelle décennie. Citons quelques objectifs à moyen terme que devraient se fixer les responsables de la politique économique;

—Ajuster encore davantage la politique des prix domestiques aux prix mondiaux. C'est le sens qu'il faut donner aux dernières modifications apportées au système de prix au début de l'année 80.

—Accroître la productivité des facteurs de production, tant en ce qui concerne l'efficacité du capital que la productivité du travail. Dans le premier cas, il s'agirait de supprimer les politiques de subvention, de cesser l'attitude paternaliste de l'Etat vis à vis des entreprises déficitaires et, enfin, introduire une norme unique et commune pour toutes les entreprises pour accéder au marché financier. Dans le second cas, il s'agit de modifier la politique salariale, de lier l'évolution des rémunérations à la croissance de la productivité. Dans ce sens, la référence à la pénurie relative de la main d'oeuvre est un faux argument. Le gouvernement en est bien conscient car il estime que la baisse de 30% du niveau des investissements durant le prochain plan quinquennal devrait être intégralement comblée par l'accroissement de la productivité du travail.

Enfin, la tension qui apparaît au niveau mondial, à la suite de l'invasion de l'Afghanistan par l'armée rouge, peut avoir deux conséquences pour l'économie hongroise:

—subir d'une manière ou d'une autre l'effort de guerre soviétique;

—subir les effets des mesures de rétorsions économiques prises par les Etats Unis et d'autres pays européens à l'encontre de l'Union soviétique.

Sur le plan politique, si la tension internationale devait se prolonger, elle ne serait pas sans conséquences sur l'évolution du consensus existant actuellement autour de ce que l'on appelle le kadarisme; une évolution négative remettrait sans aucun doute en question les acquis de cette décennie.

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Reform of the System of Economic Management in Poland 1973–79¹

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Explanatory note. Owing to the unavoidable absence of Professor Leon Smolinski, Mr. Peter Brodersen stepped into the breach at short notice and spoke on economic reform in Poland. His presentation drew very heavily on P. T. Wanless, Economic reform in Poland 1973–79, *Soviet Studies* xxxii (1) (January 1980) 27–58. Ms. Wanless has kindly supplied a shortened version of her paper for inclusion in these conference proceedings. Part IV below is reprinted from *Soviet Studies* and appears by kind permission of the Editor of *Soviet Studies*.

Introduction

In 1973 the Polish authorities embarked upon an ambitious experiment in reforming the system of economic management. This paper outlines the nature of reforms² and discusses some causes of their eventual failure.

I. Basic Principles of the New System

Characteristics

1. The basic organizational unit was the association of State-owned enterprises, known by the Polish acronym WOG. WOGs are normally sole suppliers to a particular market and can exercise considerable monopoly power.
2. The new management system was introduced on an experimental basis in a few WOGs, and gradually extended to others; but it never became universal.
3. The new system belongs to the type known as “management by parameters”, a decentralized system of economic management in which a

suitable system of incentives induces producers to respond to market forces. Behaviour of producers is induced to conform with the central plan by the use of suitable policy instruments (parameters). The use of administrative directives to producers is kept to a minimum (though in practice, quite a number of directives remained in force in Poland).

4. The new system was *designed* as a single integrated mechanism to regulate the entire economic environment affecting managerial decisions.

Objectives

The objectives of the new system reflect both dissatisfaction with the "command" system of economic management and the priorities of Poland's economic strategy for the 1970s. These objectives were:

- (1) To find a better means of achieving the central plan. Administrative directives and instructions to producers would no longer be transmitted through a bureaucratic chain of command, but would be replaced by economic and financial stimuli; the requirements of the central plan would be expressed through market forces.
- (2) To improve satisfaction of social needs. There would be a reduction in the role of producer preferences in the production of goods and an increased role for consumer sovereignty. Accompanying this was a commitment in the 1971–75 Five-Year Plan to increase the level of consumption and the output of consumer goods.
- (3) To increase the rate of economic growth by improving efficiency and productivity and increasing exports.

Instruments

Indicators of Economic Performance

The new system gave pride of place to two synthetic indicators: value-added and net profit. Performance was judged by year-on-year growth in the indicators, not by comparison with any preset targets. This approach has two main advantages over preset targets for specialized indicators, such as sales or output.

Firstly, synthetic indicators compare the outcome earned by economic activity with the costs incurred; specialized indicators reflect outcomes but not costs. The use of synthetic indicators rewards improved efficiency, reductions in unit costs through more economical use of resource, cost-

reducing technical progress, and altering output mix to suit customer needs; specialized indicators do not. Moreover, use of synthetic indicators discourages some wasteful practices which are positively encouraged when specialized indicators are used, such as using more expensive inputs to increase the value of the product, or excessive hoarding of labour and raw materials. Synthetic indicators are reduced by the costs of such practices.

Secondly, when the index of success is growth in the indicator, not achieving some preset target, a "maximizing" approach is encouraged rather than the "satisficing" approach which may be associated with the setting of fixed targets: do enough to satisfy the plan and no more.

Expressed very, very simply, the concept of value-added used in Poland was:

$$\text{VALUE-ADDED} = \left[\begin{array}{l} \text{SALES less} \\ \text{TURNOVER} \\ \text{TAXES} \end{array} \text{ plus } \left[\begin{array}{l} \text{PRICE} \\ \text{SUBSIDIES} \end{array} \right] \right] \text{ less } \left[\begin{array}{l} \text{NON-} \\ \text{LABOUR} \\ \text{COSTS} \end{array} \right]$$

Net profit may be expressed as:

$$\text{NET PROFIT} = \left[\begin{array}{l} \text{SALES less} \\ \text{TURNOVER} \\ \text{TAXES} \end{array} \text{ plus } \left[\begin{array}{l} \text{PRICE} \\ \text{SUBSIDIES} \end{array} \right] \right] \\ \text{less } \left[\begin{array}{l} \text{TOTAL plus} \\ \text{COSTS} \\ \text{REPAYMENTS OF} \\ \text{INVESTMENT CREDIT} \end{array} \right]$$

In both indicators, sales and costs were valued at market prices both for domestically produced goods and for imports and exports. External price equalization accounts had largely been abolished in 1970 to expose producers to world market prices and promote efficiency in foreign trade. The use of world market prices was adhered to fairly consistently up to 1975, especially for exports.

In theory, sales were measured as realized sales, accepted by customers in fulfilment of contract. But practice was not always consistent with principle, and planned deliveries remained in force for a number of goods.

Sales figures were net of turnover taxes and price subsidies in order to reduce the influence of producer preferences on output mix. Otherwise, producers would prefer goods bearing the highest rates of turnover tax, and would shun the production of subsidized goods (low-prices, but often deemed social necessities) and production for export (since turnover tax is not normally levied on exported goods, prices of exports are lower than on domestic sales).

The use of a dual-criterion system is difficult to justify since it may give rise to conflicting signals. In practice, value-added became the dominant indicator because of its importance in determining wages (see below).

Incentives and Remuneration

A new incentive system was set up to link remuneration of employees to the new synthetic indicators. Movements in the wage fund were linked to value-added, normally by the “incremental” formula:

$$F_1 = F_0 \left[1 + R \left[\frac{PD_1 - PD_0}{PD_0} \right] \right]$$

where: subscripts 0 and 1 indicate the previous year and the current year, F is the wage fund, PD is the value-added, and R is the policy parameter relating changes in the wage fund to changes in value-added; $0 < R < 1$.

The other indicator, net profit, determined movements in management bonuses by means of a similar formula and a policy parameter N .

The link between remuneration and synthetic indicators of performance was a new and distinctive feature of the new system, designed to reward behaviour which promoted the objectives of the system. For example, wages could grow as a result of the production of more saleable goods, increased exports, and increases in efficiency. Labour hoarding was discouraged, since shedding of excess labour meant fewer people shared a given wage fund. However, since the formula linked the *total* wage fund (or management bonus fund) to the measured performance of whole WOG, any link between individual effort and remuneration was very remote. The setting of the policy parameter R was considered of prime importance because wages are a major determinant of personal incomes and consumer spending power. The setting of R was entrusted to the highest planning authority—the Planning Commission at the Council of Ministers. Planning Commission officials were expected to set R with due regard for the targets of the national plan with respect to wages and consumption. R was a multi-period parameter, set for some two or three years, to strengthen the influence of the medium-term plan and lengthen the time-horizon of management. In addition, R was an individualized parameter which should reflect the WOG’s opportunities and prospects for increasing value-added.

Use of inputs

The new system imposed taxes on tax and capital and labour, a form of shadow-pricing designed to promote a more economical use of those inputs, and raise productivity.

A tax on the “statutory fund in fixed assets” was intended to promote efficiency in the use of fixed capital. This tax was levied on fixed assets whose

purchase was financed out of retained profit. It fulfilled the function of an opportunity cost of capital or target rate of return, combining this with the efficiency-stimulating income effect of a tax.

A shadow price for labour, higher than the going wage rate, was introduced by imposing a 20% tax on the wage fund. The aim here was to induce management to find more economical ways of using labour, and to encourage labour-saving technical innovation and raising of productivity.

Prices

Pricing policy in the new system had three basic elements.

Firstly, goods imported and exported were to be valued at world market prices in order to promote efficiency in foreign trade. Secondly, plans were made to reform domestic producers' prices by introducing the principle of "point of departure" pricing. Basically, this method of pricing seeks to prescribe uniform pricing rules and uniform profit margins throughout the economy. Uniform pricing rules were seen as a way of retaining centralized price control and checking any abuse of monopoly power by producers without the burden of setting individual prices at central level. The imposition of uniform profit margins was intended to eliminate producer preferences for goods bearing higher margins. Thus consumer preferences and demand would shape the pattern of production. Prices would be neutral, and customers' orders would determine output mix. However, this reform was never fully implemented.

Thirdly, the system of turnover tax was to be reformed. The traditional differentiated system drove a wedge between buyer's price and seller's price, tending to isolate producers from market prices. The system of differential rates would be replaced by a system of *ad valorem* rates, far fewer in number, which would be applied uniformly across product groups so that the structure of market prices more closely reflected that of producer prices, reducing the discriminatory elements and inefficiency found in the previous system.

Disposal of Proceeds of Economic Activity

As a further incentive, producers were to be given the opportunity to use part of the proceeds of economic activity to finance their own projects in investment and foreign trade.

Firstly, residual net profit (after taxes and repayment of investment credit) remained at the disposal of the WOG, forming part of the "development fund", which could be used to finance investment projects undertaken at management's initiative. Secondly, export growth was rewarded by allowing

purchases of foreign exchange (in addition to the WOGs' planned allocation of foreign exchange), which could be used to finance unplanned imports. This would be especially valuable in areas relying on imported inputs and technology and help relax resource constraints.

Neither of these moves were significant in practice. Planned investment spending took priority over projects initiated by management, and certain types of investment spending were subject to an upper limit. Spending from the development fund was also restricted by heavy taxation. The plans for giving WOGs a share in the foreign exchange they earned was not implemented because of Poland's acute shortage of foreign exchange.

II. Constraints on the Effectiveness of Reform

The reforms outlined in Part I were introduced at a time of intense economic strain. Reforms were introduced from 1973, at a time when the Polish economy was overheating due to the policy of accelerated economic growth, increased investment, and growing foreign indebtedness, accompanied by increases in money wages given to fulfil the pledges of the 1971–75 Five-Year-Plan. Considerable excess demand emerged in 1973–74. The reforms were expected to resolve these problems by stimulating production, exports, and profits to finance investment. The new management system was subjected to a very severe test as soon as it was introduced.

The reforms were made without any changes in the method of central planning and without formally changing the organizational links between the WOGs and their supervising economic ministries. The economic ministries formed an intermediate level of government in the "command" system of management, but should have been unnecessary in the new system. Moreover, the new system, introduced on an experimental basis, had to co-exist with the old one, and no moves were made to promote competition or check the monopoly powers of producers. All this severely constrained the effectiveness of an allegedly decentralized, market-orientated system of management.

The reforms were further weakened when planned reforms in domestic pricing were abandoned. The authorities, in the aftermath of the food price riots of 1970, feared that price reforms would be unpopular if changing price relativities induced changes in the absolute level of consumer prices of certain goods. The planned domestic price reforms were never implemented, but in an attempt to make prices more flexible and realistic, the authorities gave producers considerable discretion over the pricing of new products. This gave producers opportunity to exercise market power, and established lines of goods vanished from the markets, to be replaced by "new improved" versions, and this added to inflationary pressure.

The authorities persisted with the remaining parts of the reforms, but these were now defective, shaped by political expediency rather than economic rationality. Production decisions were based on an inappropriate structure of prices, and, accordingly, the incentives of the new system of remuneration did not promote desired objectives. Moreover, considerable problems emerged, associated with the setting of the policy parameter R . The Planning Commission soon found that it lacked the hard data and objective method required to set the appropriate level of R for each WOG. It was obliged to base assessments on information supplied by the WOGs, and, rather than being an exogenous policy parameter, the value of R became the object of intensive bargaining between the Planning Commission and the senior management of the WOG. This bargaining was carried out under conditions of bilateral monopoly with unequal access to information. The directors of the WOG knew their own potential and their markets much better than the officials of the Planning Commission could do, but the directors had an incentive to exaggerate their difficulties, for in this way it was easier to earn large salaries and bonuses.

As a result of these difficulties, market prices and wages began to rise unacceptably fast, and inflationary pressure built up. From late 1974 onwards, these problems were intensified by external events, as inflation began to accelerate on world markets.

III. Suspension of the System (1976) and Modification (1977)

Faced with these problems, the authorities began to take remedial action. A number of taxes were increased from the beginning of 1975, and an excess profits tax was introduced to tax away windfall profits on export sales. Then at the beginning of 1976, the new principles of remuneration were suspended completely to be replaced by an economy-wide pay policy which constrained average wages to grow more slowly than average productivity. This applied to WOGs which had introduced the new system of management as well as to those which had remained in the previous system. A new policy parameter O governed the relationship between average wages and productivity (usually measured by sales or output per employee). O was set by the economic ministries, whose role in the management system was reintroduced. The general tendency in 1976 was to revert to greater bureaucratic intervention and to the use of specialized indicators such as sales or output.

These were emergency measures; meanwhile the authorities were working on modifications to the original system of reforms. From the beginning of 1977 three forms of economic management operated in Poland.

Organizations which had never introduced the reforms operated in the

pre-1973 system of administrative directives and plan targets. Some WOGs operated the 1975–76 version of reforms, with the principles of remuneration suspended and replaced by the use of parameter 0. The remainder, some fifty-five WOGs in engineering, chemicals, agricultural machinery, and light industry, introduced a “modified” version of the new system of management; these modifications subsequently spread further.

The modifications of 1977 had two characteristics—a strengthening of the role of the economic ministries and of bureaucratic intervention in management of the WOG; and the introduction of new policy instruments, in form of progressive taxes to curb inflationary pressure and to provide some element of automatic stabilization. Parameter *R* was reintroduced as a determinant of wages, but its scope was restricted by new taxes.

One of the new taxes was a progressive tax on unplanned growth of the wage fund. Planned growth for each WOG is set by the economic ministry in accordance with the plan for the relevant sector of the economy. Unplanned growth is taxed at progressive rates set by the relevant ministry. The revenue raised remains at the disposal of the ministries, being split between a “sectoral wage reserve” and an “intersectoral wage reserve”, providing funds which can be transferred between WOG to regulate growth of wages. This reduces the link between measured performance and remuneration, and weakens any incentive to efficiency; indeed, the selective nature of the tax creates economic distortion and promotes inefficiency.

The second new tax was an exceptionally complicated two-stage excess profits tax, which was a wide-ranging tax which ultimately reduced the wage fund and the management bonus fund. It was designed to tax away the windfall profits of inflation, but the tax base did not actually distinguish between the “paper profits” of inflation and other sources of profit. As a result, all increases in profit were liable to tax, which further weakened incentives to efficiency. This tax also imposed considerable administrative burdens and delays because of its very complex nature. As a further complication, ministries could set individualized tax rates for each WOG. The tax was eventually abandoned in January 1979.

The modifications of 1977 incorporated some further changes. The setting of norm *R* was removed from the jurisdiction of the Planning Commission and entrusted to the economic ministries. Even *a priori*, it is doubtful if the economic ministries would be any more successful in setting “realistic” values for *R*. In practice, the effort is now rarely made, and economic ministries have generally come to rely on the traditional apparatus of the “command” system of economic management. Though the modifications of 1977 originally promised to continue at least some of the positive aspects of reform, reform has been stifled by increased administrative direction and rendered inoperative by reduced managerial independence and responsibility.

IV. A General Overview

In the period since their introduction, the 1973 reforms have been extensively discussed and criticized in Poland.³ These reforms have proved no more successful than earlier attempts. Even before the economic difficulties of 1975–76, the reforms can be criticized on various counts: the piecemeal introduction of the reforms; the fact that the reforms were only partially implemented; the lack of reforms in central planning; and the continued supervisory role of the economic ministries. But such criticisms pale into insignificance compared with the accusation that the new system generated inflationary pressure and allowed foreign inflationary pressure to be transmitted to the domestic economy. But, to the author, the most serious criticism which must be made is that the reformed system of management lacked stability. Too many changes were made too quickly, always as a response under pressure of an immediate crisis.

Looking at the period as a whole, the reforms may be criticized on three levels. On a superficial level one may query the timing of the reforms. At a deeper level one can analyse weaknesses in the administration of the reformed system. On a fundamental level one may question the formulation of the objectives of the system, their appropriateness, and their compatibility.

Timing

When the reformed system of management was introduced in 1973, the Polish economy was already under strain and subject to severe imbalance. A policy of increasing money wages combined with high rates of investment in pursuit of faster economic growth led to excess demand in the consumer goods market which eventually (from 1973) manifested itself in open inflation. High foreign indebtedness and comparatively poor export performance led to disequilibrium in the balance of payments (exchange rates were fixed).

The reforms were introduced into this atmosphere of economic tension, even crisis. The reforms were intended to make a substantial contribution to alleviating the strain. It was believed that by increasing productivity and efficiency, additional resources could be made available to satisfy commitments to increase exports and investment, without making any sacrifice in consumption; and it was believed that the new incentive system could make an immediate contribution to increasing productivity and efficiency.

Expectations of the new system were high—unreasonably, unrealistically high. In the event, the strains in the economy placed an immediate strain on the new reforms, rather than the reforms making an immediate contribution

to alleviating the strains in the economy. Disillusion set in rapidly. The reforms had been expected to pay off in terms of better economic performance. No immediate benefit was forthcoming. Instead, the economy lurched into further crisis, with faster inflation and a deteriorating external position. The reforms were believed to have worsened the crisis by allowing producers to put up prices and "causing" inflation (the emergence of open inflation seems to have been the major cause for concern) and by a system of remuneration which turned the paper profits of inflation into additional consumer demand.

As a result of these strains, the reforms were not given a chance to establish themselves fully. When the first crisis measures were taken at the beginning of 1975, the longest any WOG had operated the new system was about 2 years, and some had not operated the new system for more than a few months.

The problems of timing were aggravated by making the reforms at a time when the authorities were too weak to impose them in full. Following the events of 1970, power had slipped away from the Party, leaving the authorities without the will or the ability to impose unpopular economic reforms. In the prevailing social and political climate, the authorities found it expedient to abandon those parts of the reforms which were likely to be unpopular (i.e. the pricing reforms) and only implemented those portions which were likely to be popular (i.e. those which gave scope for wage increases) or which, because of their rather technical nature, were not likely to arouse much popular interest (e.g. the interest charge on the statutory fund in fixed assets).

Thus a combination of economic stress and political weakness at the time the reforms were introduced led to the reforms emerging in a partial form, lacking certain essential elements. The problems of reform were then compounded by completely exogenous factors, arising coincidentally and contemporaneously outside the Polish economy in the form of the rapid acceleration of world inflation after 1973. But it was the internal factors which finally defeated the reforms and led to the emergency measures of 1975-76 and the suppression of the reforms.

Administration

Once the reforms had been partially implemented, the first task of the authorities who were to administer the system should have been to maintain stability in the system of economic management. This was required for two reasons: firstly, to acquire a reliable body of knowledge on how the system actually worked; and, secondly, to allow planners and managers to overcome

their initial unfamiliarity with the new system and to learn to play according to the new "rules of the game", so enhancing business confidence and reducing uncertainty.

But in practice the reforms generated a lack of confidence and increased uncertainty. In the first place, uncertainty was simply due to the unfamiliar nature of the new system. Planners and officials found themselves called upon to learn new skills in administration, while managers had to learn new strategies of management. Economic planners experienced increased uncertainty because they did not know how producers would react to the new system; they could not predict how changes in parameters would affect the behaviour of producers; and they had no established techniques of economic modelling to guide the setting of parameters, comparable to the input-output analysis which forms the basis of central planning. Producers experienced uncertainty about how planners would respond to producers' own response to the new system; their experience no longer served to tell them what kind of behaviour was appropriate. Producers' uncertainties were further increased because they could not predict how long existing levels of parameters would continue, nor could they predict the responses of other producers to the parametric system.

But it may be argued that the uncertainty due to the unfamiliarity with the new system is purely a transitional problem; such uncertainty will be reduced over time as the system becomes more familiar. But in Poland the system had no chance to become familiar; the reforms were unstable, the rules of the game changed within a very short period of time. The key to understanding this instability lies in the response of the planners to the system. When the system began to react inappropriately to prevailing levels of parameters, the planners ultimately responded by changing the system instead of changing the values of the parameters. This may reflect lack of confidence in the new system, possibly connected with the lack of a macro-economic model to guide policy-making. Yet in models of parametric management or decentralized socialism,⁴ planners do not necessarily set the value of policy instruments on the basis of a well-specified economic model. Parameters may be set on a trial-and-error basis, changing the values of parameters according to the difference between actual and target values of policy objectives. Polish planners were apparently not willing to allow such a process to continue for any length of time. (In fairness, it must be noted that dynamic factors might prevent such an iterative process ever converging on an equilibrium value of the policy parameter: for example, as inflationary pressure built up as a result of the current value of norm R being inappropriate, the value of R consistent with equilibrium would be changing.)

Although new policy instruments were introduced with the modifications of 1977, the general trend has been towards increased bureaucratic

intervention and administrative direction rather than towards a strengthening of the role of policy parameters. This is evidenced by the highly specialized and selective nature of the new taxes. Although avowedly introduced to tackle the general problem of inflation, these taxes were tailored to the circumstances of each WOG, and considerable discretion was granted to the economic ministries. To justify this, it may be argued that inflation can generate great variations in growth of value-added, profit, the wage fund, and management bonuses. But progressive taxation has automatic stabilizing properties which could reduce (though not eliminate) such variations, without any need for selective taxation. The modifications of 1977 represent a regression to management by bureaucracy and a retreat from management by parameters, whose significance is now largely formal.

Objectives

Ever since the reforms were first introduced, there have been problems over the objectives of the system. Initially, these objectives were: (1) to find a better way of implementing the central plan; (2) to promote better customer satisfaction; and (3) to promote economic growth through increased efficiency. From the outset, these objectives were compromised by the abandoning of the proposed price reforms. Political expediency, rather than economic rationality, shaped the final reforms.

More seriously, within a very short space of time, the entire specification of the objectives had been changed. From 1975 onwards, the primary objective became the control of inflationary pressure. Yet this was not an explicit objective of the original reform, and presumably the instruments of the new system were not designed with that objective in mind; when the reforms were drafted, inflation was not seen as one of the economic problems which the management system would have to solve. But with the modifications of 1977 we find that the entire management system has been adapted to serve the end of controlling inflation, and all other objectives have been completely subordinated to that end.

Evidently, the new economic-financial system lacked sufficient instruments to achieve all the objectives of economic policy. Following Tinbergen,⁵ we may argue that the economic system will therefore be under-determined, and cannot reach a stable equilibrium. In these circumstances, not all the objectives can be met. Either some objectives must be abandoned (which seemed to be the solution favoured in Poland) or additional policy instruments must be brought to bear. But in the particular case of Poland, even the additional policy instruments proved insufficient. The new policy instruments weakened the link between economic performance in the market, economic performance as measured, and the remuneration which motivates

the work force, implying that much less importance was attached to incentives to efficiency and to satisfaction of customers' demands.

Too much should not be made of the actual change in objectives *per se* (although frequent changes in the specification of objectives may be as harmful as frequent changes in the system of management). The problem lies in the relationship between policy objectives and policy instruments. In Poland the instruments have been simply insufficient to achieve the objectives, and this has not necessarily been caused by the changes in objectives, for policy instruments are not necessarily specific to a single objective, even if some instruments are more efficient in achieving certain objectives than others. Apart from the question of the actual number of instruments available, the instruments used turned out to lack versatility and to be poorly integrated with the central plans.

The lack of versatility in the instruments is shown by the fact that when new economic problems arose, and economic objectives accordingly changed, it was the actual system of management which changed—not the numerical values of the parameters. The new problems could not be handled within the existing rules of economic conduct.

The relationship of the instruments to the central plan raises the question of how to interpret the requirement that the new system should provide a better means of implementing the central plan. The problem is twofold. Firstly, should the instruments of the new system be charged with implementing all the basic objectives of economic policy, and all the assumptions about the desired state of the economy which underlie the central plan? And, secondly, to what extent must the new system be able to achieve precise numerical targets laid down in the plan, and how detailed must those targets be? In models of decentralized socialism, the role of central planners is very circumscribed when it comes to planning actual economic magnitudes (as opposed to drawing up general rules for the conduct of producers and the regulation of the distribution of income). For example, Lange and Brus restrict the directive role of central planners to two broad areas: prescribing trends in investment and exercising control over prices. Both these authors attach great importance to the parametric role of prices as the main regulator of production.⁶ In the light of this view, Poland's experience of price reform—or lack of it—is especially disturbing. Moreover, the role of price as a regulator surely implies that as a socialist economy becomes more decentralized, changes must be made in the process of drawing up the central plan and in the method of supervising producers. Without such changes, the economy remains in the straitjacket of past practices. Past organizational practice is not merely a matter of irrelevant administrative detail, but has real significance for the economy and the system of economic management.

The continuance of past practices in planning and administration in Poland constrained the decentralized system of management and compromised its objectives. The mechanism for achieving the objectives was reliance on a system of personal incentives and market forces. But a market system is based upon freedom of economic choice, and the efficiency of the market system (if it is efficient) derives from the efficiency of competition. Bureaucratic intervention from supervising ministries, on the one hand, and a degree of monopoly in production, on the other, are not consistent with the efficient operation of market forces.

The present state of the management system in Poland is unsatisfactory. Plans for further change were being prepared and discussed during 1979, but when the Party met for its conference in February 1980, no new proposals were announced. However, Edward Gierek the Party's First Secretary, promised a thorough-going revision of the economic mechanism in 1983. It remains to be seen whether Poland will move towards a more effective system of decentralized economic management.

Notes

1. The author gratefully acknowledges financial assistance from the University of Strathclyde and the Polish Cultural Institute, and valuable advice from a number of colleagues in Britain and Poland, especially the late Dr. Janusz G. Zielinski of Glasgow University, and Professor Z. Fedorowicz of the Institute of Planning, Warsaw.
2. A more detailed description of the reforms may be found in the *Soviet Studies* article on which this paper is based, and the many references cited therein.
3. For example, J. Beksiak, Centralne kierowanie gospodarka socjalistyczna a rynek (Central management of the socialist economy and the market), *Gospodarka Planowa* No. 2 (February 1979) 71-74; J. Mujzel, Problemy funkcjonowania gospodarki socjalistycznej (Problems of operation of the socialist economy), *Ekonomista* No. 5 (1978) 1159-80; B. Glinski, System centralnego kierowania gospodarka socjalistyczna i jego ewolucja, *Ekonomista*, No. 1, (1979) (translated as System of central management of the socialist economy and its evolution, *Oeconomica Polona*, VI (1) (1979) 45-63; W. Wilczynski, Makroekonomiczne kryteria gospodarowania a cele przedsiębiorstw (Macro-economic criteria for economic management and the goals of the enterprise) *Gospodarka Planowa*, No. 2 (February 1980) 73-76.
4. For example, the classic statement of this view is found in O. Lange, *On the Economic Theory of Socialism* (reprinted by McGraw-Hill, 1976), especially Part III, The trial and error procedure in a socialist economy.
5. J. Tinbergen, *On the Theory of Economic Policy*, pp. 27-28, 40, 5th printing, North Holland, London and Amsterdam, 1970.
6. Lange, op cit., especially Part III; W. Brus, *The Market in A Socialist Economy*, pp. 140, 146, London and Boston, Routledge and Kegan Paul, 1972.

Economic Reforms and the Consumer in Eastern Europe

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I. Introduction

This paper examines the impact on the consumer in Eastern Europe¹ of the various economic reforms instituted since the mid-1960s. The motivations, objectives, and consequences of these reforms are briefly described and some data are provided as indicators of changes in consumption levels in Eastern Europe.

The central proposition of the paper is that although there was a significant reallocation of resources toward the consumer in the late 1960s and early 1970s, the economic reforms were not designed to achieve this purpose, and in themselves have not resulted in it. Rather, it is argued that, in general, economic policy-makers in Eastern Europe have maintained a preference for maximizing growth rates through emphasizing the development of the producer goods and raw materials sectors. In this context consumption has been treated as a necessary cost incurred in pursuing these preferences, and as a most negotiable element when economic barriers are encountered.

Because of its broad scope, the paper does not examine each country's experience separately, although similarities and differences are noted. Instead it concentrates on the common forces influencing both the course of the economic reforms and consumption levels in the region. Part II discusses the motivation for and implementation of the economic reforms. Part III examines developments in consumption policy since the mid-1960s, finishing with a brief discussion of the future prospects for consumers in Eastern Europe.

II. Economic Reforms in Eastern Europe²

Motivation

The system of economic planning and management adopted by the East European Soviet bloc countries in the immediate postwar period was

essentially an imitation of that developed in the Soviet Union in the 1930s. The system was intended to achieve a rapid “socialist transformation” of the economies of the region, and was characterized by a highly centralized system of economic planning in which a central planning authority attempted to exercise control over all economic activity.

Following the Soviet precedent, East European planners maintained a primary commitment to high rates of economic growth, concentrating on the growth of heavy industry. This growth policy was largely pursued through forced transfers of labor from agriculture (at least in those countries with a large agricultural labor supply) and through forced savings levied on consumers to finance a rapidly expanding investment program. Turnover taxes became the major source of savings, and these were generally secured through maintaining a wide gap between the prices paid to agricultural producers and those paid by the consumers. This strategy necessarily required that strict limitations be placed on the growth of real consumption levels.

By the early 1960s, however, a number of Soviet and East European economists and economic planners had begun to question the suitability of the highly centralized system of command planning. While scattered criticisms had been directed against planning procedures in the 1950s (especially in Poland), it was only in the early 1960s that a widespread debate developed among economists in each country of the region which eventually resulted in government proposals for modifications to economic policy and to planning and management procedures. Debate concentrated not so much on the implications of the forced growth strategy for consumers, but on the desirability of increasing the economic efficiency of production. Nevertheless, the economic policy changes adopted, together with the implementation of the reforms, had important consequences for consumers in Eastern Europe. The most important of these were based on the recognition that, with economic development, production must increasingly become oriented toward the satisfaction of consumer demands with a redirection of policies away from the former “heavy industry” orientation. Concomitant with this was a reduced emphasis by economic policy-makers on growth as such, and greater emphasis on the efficient use of available resources.

The economic reform measures were based on a broad consensus that the priorities and planning techniques of the immediate postwar period were no longer appropriate. Some critics of the command planning system argued that the system was fundamentally defective. Others argued that it was (and always had been) inappropriate in the East European context where the economic, social, and political environment was radically different from that prevailing in the Soviet Union. There was, however, general agreement that the command planning system had resulted in a complex, overcentralized

administrative structure which was inefficient, inflexible, and discouraged initiative. Criticism was also directed at the fact that the central authorities were compelled to use methods of planning which encouraged enterprise managers to substitute targets with high (incentive) payoffs for those with low payoffs; and at policies promoting autarky, which compelled the countries of the region to develop industries which were unsuited to resource availabilities.

Among economic policy-makers, however, more moderate views generally prevailed. Official documents counseling reform usually argued that while directive planning had been necessary in the immediate postwar period, new circumstances required changes (of varying emphasis) in this development strategy. In particular, the authorities acknowledged for the first time that growth could no longer be obtained merely by increasing inputs or by a reallocation of inputs from less to more productive uses (i.e., by extensive growth). In this view, policies would need to be directed toward securing growth by increasing the productivity of inputs (i.e., by intensive growth).

The scale and ultimate consequences of the initial reform proposals varied considerably from country to country. Moreover, these initial proposals were soon modified (with the possible exception of Hungary) and even then were only partially implemented. For these reasons, and because several comparisons of the reform measures have already been published elsewhere,³ no detailed comparison of the reforms is attempted here. Nevertheless, the structural changes proposed by the various East European countries had a number of common characteristics which can usefully be restated here. All countries in the region proposed to:

- (1) *Decentralize decision-making powers*, by giving greater authority to either intermediate industrial authorities or to individual enterprises (as in Hungary).
- (2) *Increase the financial autonomy of enterprises* by (a) reducing the number of obligatory targets; (b) replacing simple quantitative measures of performance with more "synthetic" financial measures; and (c) making greater use of incentives, as opposed to administrative regulation.
- (3) *Restructure the price system* so that prices for producer goods, consumer goods, and raw materials would more closely reflect supply and demand conditions. More frequent administrative price adjustments and increased use of the market mechanism were also proposed in order to facilitate flexible adjustment to changed economic circumstances.
- (4) *Open up the economy* in order to establish a closer link between the domestic and foreign trade systems. This involved both the recognition

of foreign trade as an important tool facilitating economic growth and a (partial) denial of previous policies, which viewed trade (particularly with the West) as a short-term method of covering domestic shortages and production bottlenecks.

Perhaps the most significant element in the initial reform proposals was the decision to decentralize the decision-making authority. However, there were two broad schools of thought about the actual methods of decentralization which should be employed in the East European reforms.

The first, and ultimately predominant, school argued that decentralization should take place within the context of a basically intact command planning hierarchy. This would require the partial devolution of authority to lower echelons of the administrative hierarchy. It was argued that this would streamline the administrative apparatus by allowing the lower levels to exercise greater discretion in microeconomic decision-making (particularly relating to decisions on production techniques and product mix), while the central authorities would still determine total output and input quotas. It was claimed that this would improve the planning system by (i) allowing those with the technical expertise to make some decisions; and by (ii) reducing the decision-making load on the central authorities. Such “administrative” reform programs envisaged no fundamental change in the principles of command planning and central control; thus, reformers supporting this approach suggested pragmatic alternatives which would improve the efficiency of the planning system while leaving it basically intact.

The second school argued for the dismantling of the *command* planning system and its replacement with an *indicative* planning system; the market would replace administrative *fiat* as the basis of microeconomic decision-making. This would require the establishment of “horizontal” (market) links between economic agents which would replace the previously dominant “vertical” (administrative) authority system; profits could then be used as a guide to enterprise performance. While the market would thus guide enterprise managers in their microeconomic decisions (on input and output quantities and production techniques), control would be exercised through (i) central determination of macroeconomic policy (regulation of taxation and government expenditure and of credit and the banking system); and (ii) more direct regulation of economic activities considered to be of national significance.

Implementation

As with the initial reform proposals, some common characteristics of reform implementation can be identified, although here, too, there were

considerable variations between countries in terms of scope and methods employed.

The majority adopted reform measures which, at the risk of gross oversimplification, can be characterized as attempts to streamline the command planning system. Thus Bulgaria, the GDR, Poland, Romania, and post-1968 Czechoslovakia all adopted policies which, like similar measures adopted in the USSR, concentrated on gradual and experimental changes to existing decision-making procedures.

Formal decision-making authority devolved, in varying degrees (and with subsequent recentralization), to intermediate "associations" of enterprises in Bulgaria, the GDR, Poland, and Romania. Enterprises in these countries were issued with less-detailed (although still centrally determined) plan targets and given greater financial autonomy, with increased use of contracts to co-ordinate enterprise transactions. Sales and profits gained in importance as enterprise performance criteria. Enterprise managers were given greater control over the use of wage funds and some (strictly limited) discretion over the use of enterprise-generated investment funds.

The reforms undertaken in Hungary in 1968 and in Czechoslovakia between 1966 and the post-1968 "normalization" stand in marked contrast to the measures taken elsewhere. Both Hungary and Czechoslovakia introduced changes which were designed to replace the command planning system with a "regulated socialist market" system.

Full implementation of these market oriented reforms would have required the abandonment of command planning; the use of indicative planning, with the effect that enterprises would no longer be issued with disaggregated, operational plans for current production; a price reform such that prices would be determined by newly created markets, but with some price control in accordance with macroeconomic policy; import competition to be allowed in all sectors within the constraints of resource availability; the independence of enterprise management from the state;⁴ and the use of government monetary and fiscal policies, within the context of an indicative plan, as the major central regulatory device.

In both Czechoslovakia and Hungary, however, full implementation was not forthcoming. The fate of market socialism in Czechoslovakia is well known and needs no elaboration here other than to note that the reform measures taken over the period 1966-68 were rescinded with great rapidity. The course of the Hungarian "New Economic Mechanism" is more difficult to chart. Hungarian commitment to market socialism has fluctuated in the face of adverse economic conditions and an inconsistent political response by the authorities. Nevertheless, price reforms in July 1979 and again in January 1980 and restated support for the principles underlying the 1968

reform in recent months still provide a clear contrast with the course of reform in other East European countries.

By the early 1970s signs of a return to traditional command planning procedures could be confirmed in all countries of the region: important aspects of the reforms were not implemented; others were implemented but subsequently revoked. By and large, however, the retreat from reform was accomplished by informal recentralization as central planners re-exerted their authority over enterprises without any formal changes in the rules.

It had always been evident, particularly in those countries opting for administrative reforms, that the commitment to the principles of the reform was by no means unqualified. In all countries the reforms had encountered domestic ideological objections (particularly by those committed to the Stalinist system) and political opposition (both from those whose administrative authority was threatened and from sectors of the population, particularly the workers, who felt their security or social interest was at risk). The Czechoslovak and Hungarian reforms also came in for criticism from "fraternal allies", particularly the GDR and the USSR, where concern was expressed at their course. Taut planning, internal inconsistencies in the planning and implementation of the reforms, and growing difficulties resulting from Western "stagflation" and rising raw material costs all created further forces for recentralization.

The process of recentralization which continued in the 1970s did not necessarily imply a complete return to the highly centralized economic system predominant in the immediate postwar period. It is evident that the reform era brought with it an environment in which policy-makers were more prepared to consider pragmatic changes which would previously have been ruled out for ideological reasons. The economic reforms also resulted in a more rational price system and a greater willingness to adjust prices to reflect international market forces. Perhaps the most important lasting feature of the reforms has been the increased emphasis on financial as opposed to physical planning and, with this, the increased use of contracts to co-ordinate enterprise transactions. But going against this inheritance from the reform era is the apparent East European disillusion with rational comprehensive reform programs: in recent years the former interest in reform has been replaced by *ad hoc* experiments which have tended to have rather haphazard consequences.

III. Developments in Consumption Policy in Eastern Europe

Throughout the postwar period consumption policy in Eastern Europe has been profoundly affected by the communist authorities' ideological conviction that they were compelled to control all economic activity in order to avoid

the "anarchy of the market". This was the prime justification for the implementation of the principle of command planning. As far as consumption is concerned, this has meant that planners have sought to control not only the absolute level of consumption but also its structure. However, economic planners have always subordinated consumption policy to broader economic objectives, and in particular to a primary commitment to maximizing economic growth rates. Pursuit of high growth rates has required high levels of investment and correspondingly low levels of both social and personal consumption.⁵ The consequences of this policy for consumers have been reinforced by the fact that throughout the region command planning procedures have created the conditions of a sellers' market. This has resulted in the production of poor quality goods in general, and of consumer goods in particular. Moreover, the fact that sectors geared to consumer demand have received a low ranking in planners' priorities (evidenced in particular by low investments and a technically backward infrastructure) has meant that enterprise managers have been particularly unresponsive to consumers' demands.

The Impact of Economic Reforms on the Consumer

Despite frequent observations that the economic reforms would actually enable a greater share of resources to be devoted to consumption, the reform proposals did not contain any radical alterations to existing consumption policies. As in the past, consumption policy was effectively subordinated to the perceived requirements for growth. Nevertheless, the reforms had a lasting, if indirect, effect on consumers.

Clearly, one of the most significant elements for consumers of the reforms was the consensus to increase the role of material incentives in order to secure greater labor productivity. Since their confirmation in power the East European authorities have been faced with the dilemma of choosing between distributing goods and services through the market for personal consumption, or allocating them as part of social consumption. Ideological prescriptions would favor the latter, but this has been modified, first, by a recognition of the administrative difficulties of efficiently allocating consumer goods without the aid of the market; and, second, by the pragmatic acknowledgment that wage payments provide a means for linking rewards to productive effort. The authorities resolved this dilemma by allocating the majority of consumer goods and services through the market mechanism, but at the same time keeping strict control over individual incomes, prices (including subsidies), and the quantity of goods available on the market. Nonmarket allocation of goods and services was employed for governmental provision of health, education, research, and cultural services and facilities, and for payments in

kind and provision of housing and leisure facilities by enterprises. Social security systems were also developed to make monetary payments for pensions and social care (child-minding, care for the aged and invalids).

Until the reforms were implemented, private consumption tended to rise at a slower rate than social consumption. Moreover, in all countries of the region there have been traditional biases in the allocation of social consumer goods, the most important being to the advantage of politically select groups. The rural population has also tended to be disadvantaged by the prevailing system of allocating social consumer goods (particularly in Poland with its high proportion of private farms), although this has tended to diminish with time.

It is evident that at the time the economic reforms were being formulated, policy-makers regarded the low level of personal consumption as a significant constraint on future economic growth. In particular, the experience of the early postwar period demonstrated that stagnating personal consumption had a detrimental effect on work incentives. By the mid-1960s the authorities had apparently recognized that, even though the provision of social consumer goods and the use of moral incentives might have some incentive value (through their impact on the "social consciousness" of the consumer), their effect was not strong enough to satisfy the requirements of the growth policy.

For these reasons the economic reforms were accompanied by greater emphasis on material incentives in the form of monetary rewards for performance, and a greater differentiation of these rewards. Bonuses have traditionally been paid to individual workers for successful or exceptional performance of assigned tasks. The economic reforms did not alter this practice, although bonus payments have increased since the mid-1960s and there has been a greater tendency to emphasize that such payments should not be regarded as part of normal wage payments.

However, the reforms considerably affected the scale and methods of bonus payments to managers. The reform proposals suggested that managerial bonuses should be based on rules common to all enterprises and should be relatively stable over time. Such bonuses were also more closely linked to the profit performance of the enterprise; the determination of the levels of managerial bonuses generally became rather complex and detailed formulas were developed in order to distribute the largest bonuses to the most "successful" managers.

In practice the managerial bonus systems were neither uniform nor stable over time. The process of recentralization was quickly reflected in the bonus schemes. In particular, ministries tended to develop schemes specific to certain enterprises which modified the differentiation in rewards between managers. In Hungary, even though a uniform scheme of managerial bonuses was introduced, bonus payments under the scheme were drastically cut after

public opposition to the resultant differentiation of incomes between managers and production workers.

Proposals for restructuring the pricing system were generally neglected when the reforms were actually implemented. This reflected not only the trend toward recentralization, but also official concern as to the likely popular reaction to a more flexible pricing policy. This subject became an increasingly sensitive one in the 1970s, particularly following the demonstrations and riots over price rises in Poland in December 1970, and their repetition in June 1976.

A number of countries proposed the introduction of a more flexible price-fixing system that would facilitate the gradual decontrol of prices by gradually transferring commodities from tightly regulated to free-price categories. Thus, in Bulgaria, Czechoslovakia, and Hungary a multitier price system was proposed that would allow the central authorities to divide commodities into broad pricing categories including fixed prices, prices with limited variation, and free prices. This system was ultimately introduced only in Hungary, and even here the central authorities still exercise considerable informal control over the enterprises' pricing policies.⁶

Price adjustments connected with the reforms concentrated on producer and input prices. Despite their irrationality and a new commitment to flexible price adjustments, consumer prices remained largely unaffected by the reforms. Concern about potential (and actual) popular reaction to price rises together with an ideological commitment to stable prices were generally sufficient to ensure only relatively minor consumer price adjustments. However, emerging inflationary trends in the West and their effects in Eastern Europe in the early 1970s have forced the authorities to reconsider their policies and, at least in some countries of the region, the reform debates of the 1960s have provided the theoretical basis for subsequent consumer price changes.

The reforms did not result in a redistribution of resources to consumers. Nor were they intended to achieve this purpose. Economic planners continued to exercise control over the prices and quantity of most consumer goods—with the important exception of foodstuffs supplied by private producers.

The Role of Markets for Consumer Goods

For most commodities, a market exists only in a very limited sense, with demand and not price as the equilibrating variable. As the price of many goods is below the market clearing level, waiting lines, barter arrangements and black markets of various shades of legality,⁷ and even smuggling have become important market clearing techniques throughout the region. Because of their character, such activities are difficult to quantify and reports

of them are largely anecdotal. It is also difficult to evaluate the relative importance of these activities in the various countries or their changing importance over time. Nevertheless, it is safe to conclude that, without significant increases in the availability of goods through official sources, such activities will continue to be important market-clearing devices.

Ideological reservations have not, apparently, inhibited the East European authorities from engaging in (presumably) profitable market-clearing exercises. Thus, throughout Eastern Europe the authorities have established shops in which goods, often Western in origin, can be obtained for hard currency.⁸ Poland and the GDR have established chains of "commercial" shops in which commodities (mainly foodstuffs) can be purchased for higher prices than those existing in ordinary shops,⁹ but which attract consumers as the lines are shorter. The state has also formalized queuing arrangements for consumer durables which are in short supply, particularly cars. Thus car purchasers throughout the region must deposit large sums with the state authorities, often a number of years in advance of delivery. Such deposits attract no interest. Most countries allow line "jumping" for those willing and able to pay hard currency for such goods. Hungarian banks have refined this procedure by instituting a series of "lottery" savings accounts. One such scheme enables certain account holders (whose names are selected by lottery) to "jump" the vehicle delivery line although they still then have to pay for the car. Nevertheless, this scheme was sufficiently attractive for Hungarian consumers to deposit 9,994 million forint (i.e., \$263,000,000 at official exchange rates) in such accounts.¹⁰ This is approximately 8% of all bank deposits in Hungary.

While such schemes are unique to Eastern Europe, a number of important consumer institutions are notable by their absence in the area. Environmental or consumer protection programs are either nominal or nonexistent. Since the state assumes a monopoly right to determine policy, criticisms of state marketing methods or of environmental pollution are, by definition, criticisms of the state. Existing "consumer protection" laws in Eastern Europe are mainly designed to control the "second" economy¹¹ and thus are not necessarily advantageous to consumers.

Consumption Policy Since the Reforms

The casual observer could not fail to be impressed by the dimension of consumption problems in Eastern Europe. Accounts in the national press, supported by frequently repeated reports in the local media, emphasize the poor technical quality of goods; their limited variety; the unreliability of the supply of goods and (especially) services; and the general difficulty of goods procurement. Difficulties of procurement appear to be especially acute in

Poland, but media reports indicate that the problem is severe throughout the region.

Despite these profound problems, official statistical publications indicate that there has been a marked improvement in real consumption levels since the mid-1960s. This is illustrated by evidence throughout the region of increased per capita food consumption, and by the quantitative gains in the supply of necessities (such as food and clothing) and of consumer durables.

An explanation of this apparent contradiction is, at least partially, to be found in the rapidly rising consumption expectations of the population in these countries. As consumption levels have risen in the region, it seems that consumers have adapted their expectations to the new, higher level, using it in turn as the basis for further consumption claims. While some authorities have been critical of these "materialistic" aspirations, it is possible that the authorities themselves released these expectations by a conscious decision in the mid-1960s to increase consumption levels and by raising real wages at a faster rate than the increase in the supply of consumption goods.

An examination of available aggregate consumption data gives some support for this hypothesis. There is, however, a paucity of official data on aggregate consumption levels. This problem is compounded by the difficulty of interpreting the data actually provided. Usually little or no information is available about either definitions or details of data collection procedures. The difficulties of measuring changes over time or international differences in consumption data are enormous and one must treat such data with a healthy suspicion.¹²

Alton *et al.* (1979) have provided an index of aggregate per capita consumption levels and their rate of growth for five of the Eastern European countries from 1960 to 1978, and these are reproduced here as Tables 1 and 2. These data are based on price and quantity data for individual commodity groups appearing in official East European statistical publications. No data are provided for Romania as the official statistics were insufficient for the calculation of the indices. In the absence of such data Table 3 can be taken as an indicator of the direction of changes in consumption in Romania.

Table 1
*Rates of Growth of Consumption per capita of Five East European Countries,
 1960-78*
 (annual percentage change)*

Country	1960-65	1965-70	1970-75	1976	1977	1978
Bulgaria	3.9	3.4	3.3	3.7	-0.6	2.4
CSSR	0.7	2.2	2.0	1.4	1.7	2.6
GDR	1.4	2.3	4.1	3.6	0.8	2.2
Hungary	1.6	3.4	2.9	1.0	4.1	2.4
Poland	2.2	3.1	4.6	5.2	2.5	0.2

* Rates for five-year spans calculated as the compound rate between end-point levels.
 Source: Alton *et al.* (1979).

Table 2
*Indices of Personal Consumption per capita of Five East European Countries,
 at Adjusted Market Prices, 1960, 1965, and 1970-78*

Country	(Indexes 1965 = 100)										
	1960	1965	1970	1971	1972	1973	1974	1975	1976	1977	1978
Bulgaria	82.5	100.0	118.2	121.4	124.4	129.6	132.4	138.8	144.0	143.1	146.5
CSSR	96.5	100.0	111.5	114.6	116.1	118.6	122.0	123.2	124.9	127.0	130.3
GDR	93.5	100.0	112.2	115.5	121.1	129.6	132.4	137.4	142.4	143.6	146.8
Hungary	92.4	100.0	118.0	120.2	122.7	126.2	131.8	136.0	137.4	143.0	146.5
Poland	89.6	100.0	116.4	121.3	126.1	131.9	136.2	145.7	153.3	157.2	157.5

Source: Alton *et al.* (1979).

Table 3
Romania. Per capita Real Income of Population (1950 = 100)

1955	1960	1965	1970	1975	1976	1977	1978
137	161	214	263	366	397	411	444

Source: *Anuarul Statistic al Republicii Socialiste România, 1979.*

The data provided in Tables 1, 2, and 3 indicate that for all the countries of the region there was a considerable boost to the rate of growth of per capita consumption, beginning in the period 1965-70. This boost was most pronounced in Poland where higher growth rates lasted until 1976, and probably most moderate in Czechoslovakia, although the fluctuation in growth rates was smaller in Czechoslovakia than elsewhere. These data also indicate a remarkable slump in growth rates of per capita consumption throughout the region, beginning generally in 1976.

Evidence of increasing consumption in the region does not necessarily conflict with the suggestion, made earlier in this paper, that the economic reforms did not have a direct impact on consumers. While the economic reformers did argue that the benefits of the reforms would be passed on to consumers, the ultimate failure to implement the reforms excluded this possibility. Moreover, there are a number of reasons for believing that the

authorities throughout the region made a conscious, but separate, decision to increase consumption levels. It is therefore appropriate to examine the forces which may have influenced the authorities to follow such a policy.

Consumption as propaganda

One of the key elements of Soviet bloc policy has been the desire to demonstrate the superiority of “rational” and “scientific” economic planning over the “anarchy” of market capitalism. The remarkable quantitative growth performance of these economies in the early postwar period was long held to be a demonstration of this. However, the fact that this growth did not result in a dramatic improvement in living standards clearly modified the propaganda “victory”. Increased consumption would therefore be the final proof of the superiority of socialism.

Because of their unique position, the authorities in the GDR have no doubt been particularly influenced by this factor in their attempts to emulate the West German *Wirtschaftswunder*.

Consumption to “reassure” or “pacify” the population

It is apparent that throughout the region party leaders were especially aware of popular domestic disillusionment with their regimes. They were particularly keen to separate themselves from the Stalinist terror (or “the cult of the personality”) by “correcting” the “errors” of the past. Moreover, in some countries talk of reform aroused popular concern that even existing living standards might be endangered. Increasing consumption would thus be a sign of *rapprochement* with the population.

This factor is most evident in the Western part of the region (i.e., excluding Bulgaria and Romania), where a history of closer contact with Western culture has meant that the populations are relatively less prepared to accept authoritarian control. This has clearly influenced consumption policy in Czechoslovakia since the post-1968 “normalization” and in Poland following the events of December 1970 (although the Polish authorities apparently had to relearn this in June 1976). There is strong evidence that the authorities throughout the region, and especially in the GDR and Hungary, have adjusted their policies toward consumers in the light of the Polish experience.

Consumption as a necessary component of an intensive growth policy (see the section on economic reforms)

The relatively low level of development in Bulgaria and Romania has

meant that the authorities in these countries have not been particularly influenced by this factor.

High levels of quantitative growth in the immediate postwar period had resulted in the development of an industrial base in the region. This has meant that the opportunity cost (in terms of growth foregone) of diverting resources from investment to consumption was reduced. The influence of those who favored extensive growth policies together with strict restraints on consumption accordingly declined.

Greater domestic autonomy and consumer aspirations

There is evidence to suggest that, following the departure of Stalin and his appointees in Eastern Europe, the local party leaderships in the region gained a degree of independence, particularly in terms of domestic economic policy. Although the experience in Czechoslovakia following the “Prague Spring” illustrates the very definite limits to this autonomy, the pursuit of remarkably varied economic policies in the region demonstrates a greater Soviet tolerance of such “deviations”.

At the same time, anecdotal accounts suggest that the regimes in Eastern Europe have been subjected to increasing demands by their populations for increased levels of consumption. A number of factors have apparently influenced popular consumption aspirations. Casual empiricism—in the absence of documentary evidence—has led many observers to conclude that East Europeans have been increasingly influenced by the relatively high levels of consumption in the West in formulating their own consumption demands. It has been frequently argued that such comparisons have resulted in greater pressure on the authorities to increase the domestic supply of consumption goods. While neither the validity of such arguments nor the response of the authorities to such demands can be confirmed, it is possible, first, that the authorities have been influenced by such considerations, and, secondly, that they have been in a position to accede at least partially to such demands without Soviet approval. Such arguments appear to have greater validity in Poland and Hungary than elsewhere in the region.

Developments Since 1975 and Future Prospects

Tables 1–3 indicate that all the countries of the region have encountered declining growth rates in consumption levels over the period 1978–80. Initial estimates for 1979 suggest that this trend has continued. The severity of shortages in the supply of stable consumer goods has apparently increased. Reports from Poland indicate that such shortages are the worst in the last decade, while even in the GDR there have been increasingly frequent reports

of shortages. These reports have been reinforced by official acknowledgment of stagnating real income (in Hungary real wages declined by 1.0–1.5%) and low rates of growth of national income (in Poland national income declined by 2.0%). The 1976–80 five-year plans adopted by the East European countries in 1976 targeted the lowest growth rates since World War II, and recent announcements indicate that even these relatively modest goals will not be achieved.

While declining growth rates may not appear to be a particularly extraordinary problem in a world confronted with the need to adjust to rising energy costs, the options for improved performance in Eastern Europe seem to be especially limited. The (nonreform) policies which appear to be politically acceptable are likely to be ineffective, while the (reform) policies which are likely to be effective have apparently been excluded from consideration on political grounds. The economic problems which motivated reforms in the 1960s are more evident now than ever. Existing institutions militate against adjustment to a rapidly changing economic environment; result in the production of goods of inferior quality which cannot be readily sold on Western markets and which are increasingly unacceptable to domestic consumers; and are unable to generate and develop new technologies, which has, in turn, resulted in a dependence on Western technology at considerable and increasing cost, and which is often outdated at the time of commissioning and/or inefficiently employed. As a result, the impact of Western recession, inflation, and rising energy costs on the relatively resource-poor economies of Eastern Europe has been magnified by shortcomings in existing planning and management procedures.

The performance of the East European economies in the 1970s undermines the assumption that economic growth can be achieved through the existing institutions. The criticisms made of planning procedures in the “reform” era of the late 1960s are still applicable, yet despite the recent reports indicating declining growth potential throughout the region, the authorities are apparently still unprepared to undertake any comprehensive institutional reforms which would decentralize economic decision-making and increase the role of the market. The principles of economic reform espoused by the Hungarians in the late 1960s would appear to provide a politically feasible model upon which comprehensive decentralizing reforms could be based. Only in Hungary has there been any apparent recent awareness of the inflexibilities inherent in the command planning system. The authorities in the other countries have persisted in marginal adjustments to the existing institutional structures, with rather haphazard results.

In this environment, and given the historical subordination of consumption to growth policies, it seems unlikely that consumers can expect to escape the burden of policies designed to bolster growth rates.

Notes

1. Defined for the purposes of this paper as including Bulgaria, Czechoslovakia (CSSR), the German Democratic Republic (GDR), Hungary, Poland, and Romania.
2. An economic reform is defined here as being a decision which results in the reordering of existing institutional authority structures affecting production, consumption, distribution, or exchange decisions.
3. See Bornstein (1977) or Thalheim (1975) for a more detailed analysis of the reform proposals and their implementation.
4. Although in Hungary the managers were to be (and still are) appointed by the State. The pre-1968 Czechoslovak reforms envisaged workers' self-management.
5. Personal consumption is defined here as being consumption of goods and services, obtained either for cash or in kind, out of personal disposable income. Social consumption is defined as being consumption of goods and services which are distributed without charge (or with only a nominal charge) by the State.
6. There have been some indications recently that Hungary might be considering more flexible pricing policies. Price adjustments in June 1979 and in January 1980 have reportedly been based on a renewed commitment to price adjustments in line with world price trends. However, the official retail price index increased by 14.0% over the 12 months to October 1979 (*Statisztikai Havi Közlemenyek*, December 1979), demonstrating that such price adjustments do not necessarily benefit consumers in the short run.
7. Katsenelinboigen (1978), Chapter 7, for an excellent analysis of the various market types (ranging from legal to highly illegal) existing in the Soviet Union. The analysis is, with small differences in emphasis, readily applicable to Eastern Europe.
8. Kerr (1977).
9. RFER (1978b).
10. RFER (1979a), in another scheme, lottery "winners" receive high interest payments (up to 100%) on their deposits, while "losers" receive no interest at all!
11. RFER (1978a).
12. Hanson (1968), Chapter 2, for an excellent discussion of this subject in a Soviet context.

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Economic Reforms in Bulgaria and Romania Prospects for the 1980s

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My tasks are twofold: first to evaluate the current reforms in Bulgaria and Romania, and then to assess the prospects for reform later in the 1980s. The two tasks are related because the evaluation of past reforms affects the prospects for new reforms, and I will discuss them in chronological order.

The first task poses the methodological question of how to evaluate a reform. My point is that we care not about the future of the reform itself, but about its contribution to an economic achievement, such as growth in output. Accordingly, my evaluation will relate the reforms to a standard of economic achievement and then judge its prospects by its contribution to that standard. Although this method sounds unexceptional, it provides some unexpected insights into the Bulgarian and Romanian economies because it rationalizes some existing practices that seem irrational.

For a standard by which to judge the reforms, a list of ordinary economic goals will suffice: a continued growth in output, a modest increment to the standard of living, a balance in foreign trade, and perhaps a decline in regional inequities. But this list is too large and needs paring to my allotted time. Furthermore, a single sector of the economy will illustrate more understandably the relationships that I suggest. For these expositional reasons, the relationship between a reform and its standard will refer to the reforms in agriculture and the standard of growth in agricultural production.

The choice of the agricultural sector has advantages beyond brevity. Agriculture still represents a major sector of the economy in both Bulgaria and Romania. It employs over one-fourth of the labor force in Bulgaria, and more than one-third in Romania. It represents about one-third of the national output in each country and contributes more than that share to the standard of living and the earnings of foreign exchange.¹ In addition, the countryside shelters conditions that affect other goals, such as regional equity and the growth of industry's labor force. If a labor shortage inhibits industrial growth

in the 1980s despite pro-natalist policies, more labor can be freed in the countryside by mechanization. In short, agriculture provides a case study that separates the reasonableness of the reforms from their hopes.

The reforms of Eastern Europe are divided into two categories:²

- (1) an economic reform, which shifts the co-ordination of the economy from the central planners to markets;
- (2) an administrative reform, which shifts economic decision-making from the central planners to a firm manager, or even to a group of employees.

Whereas most of the East European reforms were economic and increased the reliance on market prices and profit, the Bulgarian and Romanian reforms were administrative.³ Romania has not even yet introduced that basic market price, a charge for capital.⁴ Further, even the administrative reform was cautious. Bulgaria and Romania decentralized decision-making only slowly, and accompanied the devolution with the organization of new production units. These new units were larger and often integrated production processes vertically, as well as amalgamating some smaller units.⁵

In agriculture, this downward drift of administrative power fell on some very large farms, whose size increased as they received new decision-making rights. In both Bulgaria and Romania the farms now are the largest in Eastern Europe. In Bulgaria the average farm size is 21,500 hectares (53,000 acres), six times larger than the average Soviet farm. An average Romanian farm, while smaller, still is one of the largest in Eastern Europe.⁶ In industry, similar amalgamations occurred and average firm size increased.⁷

The new administrative power and decision-making rights given to these large units were few, and most were rescinded rather quickly. In agriculture, one author suggests that a new giant farm received eventually no more new power than to parcel out old duties among its constituent units.⁸ While a central planner might perceive an administrative reform, someone else quite justifiably could counter that not much had happened, and that the reform had melted away, leaving only a residue of some very large production units. Nevertheless, when these larger units in agriculture are evaluated by a standard of growth in their output, their record in Bulgaria and Romania is creditable indeed. Between 1970 and 1978, measured in constant prices, the growth of agricultural output exceeded that of most of Western Europe.⁹

Of course, not all growth is attributable to the larger size of farms, and some must be assigned to increased agricultural investment, such as in irrigated land, and more industrial inputs, such as fertilizer.¹⁰ However, increasing the inputs to agriculture changes an economic policy, but is not a reform.¹¹ Since reform is the subject here, the difference between reform and

policy needs only to be noted and their effects need not be laboriously untangled. It is reasonable both to assume that at least some of the growth in output is attributable to the larger farm size and to beg the question of how much. The more important questions are why a larger size should contribute to growth, and what are its limits.

The size of a production unit usually is measured by the number of workers, the value of capital assets, or (as above) by land area, but another measure shows more clearly the relationship between size, growth, and the limit to growth. This definition measures size by the number of transactions within a unit, where a larger size unit has more internal transactions than a smaller size.¹² These internal transactions allocate resources within the unit. For example, an average large Bulgarian farm produces between three and five crops and one kind of livestock, and must allocate its labor among them.¹³ To direct these transactions, a manager uses more-or-less personal authority and more-or-less autonomous internal plans. (The limits to the manager's authority and autonomy are both legal and behavioral.) External transactions between units are coordinated by markets or planners, but are outnumbered by the internal transactions when the units are large.

The value information for setting the priority of an internal allocation decision comes from prices—planned or not.¹⁴ A large unit, with many internal allocation decisions, is more productive in an economy where:¹⁵

- (1) The prices are stable or fixed. The unit adapts once to the information in the price and need not re-adapt often to a new price and the new information in it.
- (2) The units receive quotas. The unit can evade a quota by vertical integration of production—by producing for itself.

Both of these circumstances rationalize the large size of production units in Bulgaria and Romania. Their prices are fixed or exceedingly stable, and their production units receive quotas. Attempts to change either have foundered. The Bulgarians tried once to free prices but their attempts failed; the Romanians have not tried.¹⁶ Although the number of plan indicators has fallen recently, the total assigned to a unit still exceeds fifty.¹⁷ Thus the large units evade some negative consequences of quotas by exchange within, not between, units; and they reduce the frequency of their external trading. When prices are fixed and producers receive quotas, the coordination of the economy is more efficient when units are large and most of their transactions are internal.

Nevertheless, the economic characteristics include a third, that limits the optimal size.¹⁸

- (3) Mistakes have a low probability and a low average cost. Economic

mistakes, except those that are wanton, arise from information that is wrong, missing, or misinterpreted. Some mistakes are inevitable, and it is reasonable to assume that their number is proportional to the number of transactions, which defines the unit's size. However, at some size mistakes increase faster than transactions, become more costly, and limit growth in the unit and in the economy.¹⁹

If mistakes are obvious and signal the need for a reform, an economic reform scenario is possible for the 1980s, and we could expect more flexible prices, market relationships that replace planning, and smaller production units with more decision-making rights. Nothing in the recent record indicates mistakes of the magnitude to generate such a reform in the near future. While some recent policy changes suggest a more flexible economic climate, they do not suggest an economic reform, as the following discussion argues.

First, even if mistakes created the tensions, or economic disequilibria, that inform decision-makers of a need to reform, the need might not be recognized.²⁰ In particular, a hallmark of the anti-reformists is to assert that mistakes are not inevitable, but wanton; that they are the fault of a manager who should be dismissed.²¹ This argument contains two different interpretations of a manager's motivation. A first is that of a consciously and deliberately hostile manager who indeed should be dismissed. However, a second interpretation is that of an ill-trained and ill-educated manager whose organization demands too much and provides too little. This interpretation might create the tension for a reform, but in education and not in the economy. A piece of evidence for this interpretation is found in Bulgaria, where an integrated feed-livestock complex has hired its manager from the United States because of better training.²²

Second, mistakes may arise not in production but in national policies, such as the growth strategy or the choice in Bulgaria and Romania to pursue a traditional Soviet growth strategy emphasizing heavy industry at the expense of "an international specialization based on comparative advantage."²³ Despite criticisms, this old strategy has achieved some considerable goals. It transformed economies under the constraints of tradition and illiteracy, increased their standard of living and life expectancy, and broadened their participation in international trade.²⁴ Nevertheless, these two countries remain the least developed in the East European bloc and now emphasize more agricultural development. Some suggest that they need to shift further from the old Soviet strategy ("extensive growth") that moved labor from agriculture to industry to a new strategy ("intensive growth") that would make workers more productive.²⁵ Intensive growth probably requires the reduction of mistakes, but does not necessitate an economic reform if the right information reaches producers.

Another criticism is the absence of flexible prices to provide the information rapidly and efficiently. This criticism neglects the problems that flexible prices would create from the concentration of monopoly power in the large firms of these small countries. It also omits the labor market's use already of price-wage incentives. In Romania today a farmer earns more than an industrial worker.²⁶ This reversal of urban-rural wage relatives, rare in today's world, uses market incentives to retain skilled workers in agriculture. Neglected also by this criticism is the limit that international prices place on these small economies. In short, this incentive for economic reform is neither strong nor obvious.

To summarize briefly, these economies seem stable, perhaps stodgy, with few incentives for significant economic reform. The more obvious mistakes reflect less the system's organization and incentives than some outdated national policies, particularly those affecting the labor supply. The Soviet growth strategy was more appropriate when labor was more plentiful.²⁷ The managers were ill-educated when they came from a peasant population where modern skills were few.²⁸ Even the more technical failures (lack of product quality control; low fertilizer usage) can be attributed to a work force that lacks the skills to balance risks and priorities.²⁹

The labor supply in Bulgaria and Romania is affected more by national policies than by economic reforms. The demographic indicators are similar in both countries: the rate of natural increase is diminishing but positive because birth rates have fallen rapidly and not offset the death rates that have fallen slowly.³⁰ Nevertheless, some differences between the countries are important. In the 1960s Romania introduced pro-natalist policies that restricted abortions and contraceptives. The result was a one-time spurt of births (in 1967) followed by a once-again declining birth rate. Thus, the population grows faster in Romania than in Bulgaria. (Bulgaria has considered similar pro-natalist policies but not implemented them.³¹)

If present birth and death rates persist, the working-age population (age 15-64 years) in the year 2000 will increase over 1972 by 24% in Romania (10% of this after 1985) and by 8% in Bulgaria (1% after 1985). Even if Romania's fertility declined rapidly because its pro-natalist policies were reversed, its labor force still would increase by 16% because most people then of working age already are born today.³²

Not all of the working-age population in Bulgaria and Romania are employed. The main reserve is among women, fewer than half of whom work. The share of women who work is about 48% in Bulgaria and 40% in Romania.³³ Even these shares may be artificially high because they count women in agriculture who might not seek employment in another sector. Pro-natalist policies reduce the shares and counter the economic incentives that draw women into the work force. A smaller reserve occurs among people who

work abroad. These are primarily Bulgarians who work in the Soviet Union in steel, forest products, and the natural gas pipeline.³⁴

In contrast to the rest of Eastern Europe, labor in Bulgaria and Romania should continue to be plentiful in the 1980s. Nevertheless, it is short on quality, with deficiencies in skills. Of Bulgaria, one author writes that "the quality of the labor force may now be a major factor retarding growth."³⁵ It would be surprising if quality were not a problem because both countries are only one generation away from a conformist peasant society with traditional attitudes, and both lost many people with education when socialism was introduced.³⁶

Nevertheless, the national policies for improving labor skills are appropriate. Both countries have expanded investment in education and extended compulsory school years.³⁷ Both pay higher wages to workers with more skill. In Bulgarian agriculture, the workers who were least skilled, those in the private sector, have almost disappeared.³⁸ Finally, several studies demonstrate the changed attitudes that accompany an educated work force.³⁹ None of this denies the problems in labor quality but indicates the appropriate solution need not be an economic reform.

Although a reform affects primarily the domestic economy, it can be foiled by foreign events, particularly with the Soviet Union. Bulgaria and Romania are small enough to be quite dependent on the USSR, and two particular dependencies are noteworthy. The first is imported oil. Bulgaria receives oil from the Soviet Union at favored prices and would not risk this source.⁴⁰ In Romania, the domestic supply of oil is larger but supplemented from abroad. When the major supplement from Iran was stopped last fall, it was replaced unwillingly by East European neighbors from their Soviet imports. The Romanians abruptly required foreign tourists to pay hard currency for fuel. Since East European tourists are not allowed to possess hard currency, they were stranded in Red Cross camps until their governments "ransomed" them in fuel or dollars.⁴¹ The Romanians now deal more directly with the USSR for oil, and still depend on it for iron ore and pig iron.

Some suggest that the Romanians' national hatred of the Soviet Union will discourage these new transactions and encourage economic reform in the domestic economy. Ironically, the effect may be just the opposite. An analyst of Romanian political culture suggests that the quite-real hostility actually inhibits domestic reform because it externalizes the causes of domestic tension that otherwise would motivate a reform.⁴² In short, any reformists' energies are sapped by the Soviet scapegoat.

Notes

1. Used as standard country references for this paper were:
 - (a) BULGARIA: G. R. Feiwel, *Growth and Reforms in Centrally Planned Economies: The Lessons of the Bulgarian Experience*, Praeger, New York, 1977; Mark Allen, The Bulgarian economy in the 1970s, in J. Hardt (ed.), *East European Economies Post Helsinki*, pp. 647–97, Washington, 1977.
 - (b) ROMANIA: A. C. Tsantis and R. Pepper, *Romania*, The World Bank, Washington DC, 1979; M. R. Jackson, Industrialization, trade, and mobilization in Romania's drive for economic independence, in Hardt, op. cit., pp. 886–940.
2. M. Bornstein, Economic reform in Eastern Europe, in Hardt, op. cit., pp. 102–34.
3. Ibid., p. 112.
4. Ibid., p. 119.
5. Ibid., p. 113.
6. E. M. Jacobs, Recent developments in organization and management of agriculture in Eastern Europe, in Hardt, op. cit., pp. 334–8.
7. The reforms introduced a new organization into the hierarchy between the Ministry and the enterprise. In translation, it was called a “central” in Romania and a “complex” in Bulgaria. The new organization must show a profit (or planned loss) and resembles a corporation after merger. In many instances the constituent enterprises have disappeared. Accordingly, the most important effect of the reforms was to create a large enterprise and this is the focus here.
8. Jacobs, op. cit., p. 355.
9. *Handbook of Economic Statistics, 1979*, CIA, Washington DC, Table 21, p. 39.
10. My paper, Productivity in Soviet agriculture, *Slavic Review*, June 1980, shows how to value the contribution of technical inputs to agricultural growth.
11. Bornstein, op. cit., pp. 108–9.
12. R. H. Coase, The nature of the firm, in *Readings in Price Theory*, pp. 331–51, G. Stigler and K. Boulding (eds.), Chicago, 1952. See also Egon Neuberger and William Duffy, *Comparative Economic Systems: A Decision-making Approach*, Allyn & Bacon, Boston, 1976.
13. Jacobs, op. cit., pp. 342–3.
14. Coase, op. cit., p. 343.
15. Ibid., p. 342.
16. Bornstein, op. cit., pp. 118–21.
17. Not all are equally important. For example, Tsantis and Pepper, op. cit., p. 67, state that four indicators (planned output, planned exports, labor productivity, and materials cost effectiveness) determine the achievement of bonuses in Romania, but the weight of each component varies by Ministry.
18. Coase, op. cit., p. 342.
19. Ibid., pp. 340–3.
20. Agricultural examples of such mistakes might be an inability to acquire high-protein fodder, a low utilization of mineral fertilizers.
21. Bornstein, op. cit., p. 106.
22. Jacobs, op. cit., pp. 338, 344.
23. Bornstein, op. cit., p. 104.
24. See the references cited in note 1.
25. The distinction between intensive and extensive growth is made by Bornstein, op. cit., pp. 105–6, and Jackson, op. cit., pp. 887–8. In agriculture, Zvi Griliches has pointed out that intensive growth may be a fancy, designed to hide our inability to measure inputs properly.
26. A. Emel'ianov, Torzhestvo agrarnoi politiki bratskikh sotsialisticheskikh stran, *Ekonomika Sel'skogo Koziastva* No. 4 (1979) 86.
27. Allen, op. cit., pp. 662–4.
28. T. Gilbert, Rural transformation in Romania, in *The Peasantry of Eastern Europe*, Vol. 2, pp. 77–122, Ivan Volgyes (ed.), Pergamon, New York.
29. Ibid., p. 112.

30. US Department of Commerce, *Projections of the Population of the Communist Countries of Eastern Europe by Age and Sex: 1972 to 2000*, P-91, No. 33, December 1972, p. 2 (hereafter cited as *Projections*).
31. Allen, op. cit., p. 664.
32. *Projections*, p. 48.
33. Allen, op. cit., p. 664; Jackson, op. cit., p. 932.
34. F. Levčik, Migration and employment of foreign workers in the CMEA countries and their problems, in Hardt, op. cit., pp. 458–78. See also Allen, op. cit., p. 665.
35. Allen, op. cit., p. 663.
36. *Projections*, p. 3.
37. J. Georgeoff, Rural education in Bulgaria: contemporary development and policies, in Volgyes, op. cit., pp. 123–40; Tsantis and Pepper, op. cit., pp. 151–71.
38. R. Whitaker, Continuity and change in two Bulgarian communities, *Slavic Review* 38 (2) (June 1979) 259–71. Allen, op. cit., p. 685, reports the speculative activity of obviously skilled workers (teachers and other employees) in private sector agriculture; while this is reported as an abuse, it also shows the entry of skilled workers in this area.
39. Gilberg, op. cit., pp. 112 ff.; Whitaker, op. cit., p. 271.
40. *Energy Supplies in Eastern Europe: A Statistical Compilation*, CIA, Washington DC, Table 16, p. 11, reports that imports are 75% of energy consumption in Bulgaria, of which 93% came from the Soviet Union in 1977.
41. A. Popovici, Romania's independence could skid on Soviet oil, *International Herald Tribune*, December 22–23, 1979, p. 6.
42. M. Shafir, *Political Culture, Intellectual Dissent and Intellectual Consent: The Case of Rumania*, Research Paper No. 30, The Soviet and East European Research Centre, The Hebrew University of Jerusalem, September 1978, pp. 31, 44.

Czechoslovakia: Economic Prospects for the 1980s

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I. Economic Performance at the Beginning of the 1980s

One year before the current sixth Five-Year Plan period (1976–80) ends, even Czechoslovak authorities admit that the main economic targets will certainly not be reached.

As in the first 3 years (1976–78), in 1979 the actual performance figures did not correspond with the originally planned increases although the one-year plan data for 1979 were already reduced as compared with the five-year plan average annual increases.

Produced national income could be increased by only 2.7% as against 1978—the one-year plan for 1979 predicted a 4.3% growth rate which already was 0.6% below the five-year plan annual average of 4.9%. For the first time even industry was not able to report fulfilment of the plan: 20% of all industrial enterprises could not reach their planned production goals. Even worse was the situation in the construction sector, where 27.5% of the firms did not attain their objectives.¹

This lagging-behind of the construction sector not only affected housing construction (only 93% of the planned number of dwellings were completed in 1979), it also became a serious bottle-neck for investments as a whole. Since the requirements in none of the last years were met by the construction sector, larger investment projects were often completed only after delays of 2 years and more. In the meantime machinery and equipment already delivered on time for these projects—and often including imported technology from the West—remained unused. However, the central planners were not able to reduce or even stop these deliveries from the engineering industry and to divert them to export. The fulfilment report for 1979 complained that it even became necessary to export consumer goods in order to obtain that amount of hard currencies which was not earned by selling engineering products because the respective enterprises did not provide the foreign trade organizations with the planned volume of exportable goods. Considering that from 1973 onwards the

Table 1
Indicators of Economic Development in the CSSR, 1976-80

Planned VI FYP 1976-80 (1975=100)	Actual Performance, 1976-79 (growth rates per year)				Plan data in ()	Over- or Under-fulfilment of VI FYP; fulfilment of 1980 plan assumed (Plan of VI FYP=100)	
	1976 (1975=100)	1977 (1976=100)	1978 (1977=100)	1979 (1978=100)			
National income (prod.)	104.0	104.5	104.0	102.7	(104.3)	103.7	93.3-94.8
Industrial gross production	105.5	105.7	105.0	103.7	(104.5)	104.0	94.2-95.7
Construction	107.6	104.6	105.6	103.7	(105.5)	103.8	94.1
Agricultural gross production	97.2	107.9	101.5	95.8	(103.8)	107.2	95.9-96.8
Transport	104.5	100.2	102.5	101.1	(104.3)	102.1	88.6-90.0
Investment (a)	105.2	106.3	106.6	101.6	(102.9)	102.4	94.7
Labor productivity	103.0	102.5	103.7	103.2	(104.1)	103.4	92.0-94.2
Industry	104.5	100.8	104.3	102.9	(103.8)	103.7	92.0
Construction	102.0	94.9	101.8	103.1	(105.3)	103.6	80.3
Retail trade turnover	103.7	103.8	104.6	103.6	(102.8)	103.4	96.5-98
Monetary incomes of the population	104.6	104.6	103.5	103.6	(104.3)	105.3	98.8-100.4
Foreign trade turnover	111.1	112.0	108.6	110.9	(106.0)	108.2	118.3-120
Export	111.8	113.6	109.4	110.3	(106.3)	109.0	112-113.6
Import	110.4	112.1	107.7	111.3	(105.7)	107.0	129

a Investment of the socialist sector of the economy. b 1971-75=100.

Sources: VI FYP in Sbírka zákonů 69/1976; yearly reports on plan fulfilment in *Rudé právo* and *Hospodářské noviny*; *Statistické přehledy*; *Statistická ročenka ČSSR 1979*; V. Hůla: Hlavní úkoly rozvoje čs. ekonomiky v roce 1980, *Plánované hospodářství*, No. 1/(1980).

Czechoslovak balance of payments permanently shows deficits (not only with the West but also in foreign trade with the East), this unbalanced supply structure of the engineering industry—too much for investments, less than needed for foreign trade—brings about substantial difficulties for the whole economy because engineering products traditionally form by far the major part of the Czechoslovak export pattern.

The vulnerability of the Czechoslovak economy with respect to this structural effect became obvious in 1979. A very poor harvest forced the government to import 4 million tons of grain, in order to guarantee the population's food supply. Due to rapidly increasing prices for imported raw materials and fuels, the Czechoslovak balance-of-payments situation was already quite strained before it became apparent that additional grain imports were necessary. In such a situation, failures of export deliveries of engineering products assumed a much more critical importance than in previous years. Taking products from other sectors in order to fill up the export gap led to shortages in the domestic market.

In accordance with the poor performance of 1979, plan data for 1980² indicate a considerable slow-down in all major fields of economic activity, as compared with the planned increases of 1979 (Table 1). Only in agriculture is a faster growth anticipated in the hope that such a bad harvest as in 1979 will not occur again. However, taking 1978 as 100, the planned volume of agricultural gross production in 1980 will just reach a level of 103. But even if one assumes that the economic performance in 1980 follows the guidelines of the state plan, under-fulfilment of the sixth Five-Year Plan will still be substantial, as can be seen from Table 1. Generally it can be stated that at the end of the current Five-Year Plan period the Czechoslovak economy will lag behind the (medium-term) plan by one and a half years.

II. Main Problems of the Czechoslovak Economy in the 1980s

Some of the shortcomings of 1979 need not necessarily be of permanent character. For example why should it not be possible to improve the situation in the field of supply with construction materials or to manage the distribution of deliveries from the engineering industries in such a way that the export requirements can be satisfied? These are more or less questions of improving the management of planning and of enterprises. Much more important and interesting, however, are questions concerning the fundamental conditions for the medium and long-term development of the Czechoslovak economy. The following problems are considered to be of prime importance for the 1980s and will be discussed consecutively:

Labour force.
Raw materials, fuels, and energy.
Transport.
Foreign trade.

Demographic Trends and Input of Labour

In recent years unfavourable trends in the development of labour resources aggravated the critical situation of the Czechoslovak economy. In the second half of the 1970s the annual average increment of the number of employed persons was substantially smaller than that in the first half. According to the latest population projection of the Czechoslovak statistical bureaus (compiled in 1979³), the long-term development of labour supply will follow a quite favourable trend: population is expected to grow between 1975 and 2000 by 13.5%, whereas an increase of 16.9% is predicted for that part of the population which is in the so-called productive age (Table 2). However, there are remarkable differences between the individual five-year periods. For the first half of the 1980s a mere stagnation of the population in the productive age must be anticipated: between 1980 and 1985 an annual increase of only 0.18% brings about an overall five-year increase of less than 1%. Only after this period will the growth rates of the population in the productive age improve substantially as a result of the successful baby-boom policy the Czechoslovak Government pursued in the early 1970s (Table 2).

It can be expected that the Czechoslovak Government will try in the coming years to reactivate people in the post-productive age, i.e. pensioners, in order to compensate, at least to a certain extent, for the negative development exhibited for the "normal" labour resources. The latest amendments (1978) to the relevant legislation even allow persons in selected occupations to receive a full pension in addition to their normal salaries if they have reached the age for retirement (males: 60; females: 53–57) and are willing to continue to work.⁴

This policy has been pursued already in past years, as can be seen from Table 3.

In 1979 almost 23% of all retired persons were employed. Very little extension of this percentage seems to be expected for the years to follow. On the other hand, a constant high rate of investment, combined with protracted liquidation of old machinery and equipment, not only results in a long-term deterioration of capital productivity. It also creates an increasing number of vacant jobs, mainly in industry and in the service sector. Practically no more labour can be withdrawn from agriculture; and the extremely high employment rate of women has exhausted this source of additional labour also.

Table 2
The Development of the Population in Czechoslovakia, 1975-2000

	1975	1980	1985	1990	1995	2000
Population (1000) (end of the year)	14,802	15,282 (a)	—	16,077	—	16,869
Population in productive age (b) (1000) (end of the year)	8,499	8,729	8,806	9,183	9,659	9,937
Absolute increment in 5 years (1000)	311	230	77	377	476	278
Increment in 5 years (%)	3.80	2.71	0.88	4.48	5.18	2.88
Average annual growth rate	0.75	0.54	0.18	0.84	1.02	0.57

a 1979

b Males: 15-59; females: 15-54.

Sources: *Statistická ročenka ČSSR 1979*, p.21. Fulfilment report 1979, in *Rudé právo*, 25 Jan, 1980. V. Srb, Rokou bude i nadále poskrovnu, *Hospodářské noviny*, No. 30. 27 July 1979.

Table 3
Employment of Retired Persons (a) in Czechoslovakia, 1966-90

	1966	1970	1975	1977	1980	1985	1990
Persons in post-productive age (1000)	2704	2862	2860	2865	2903.5	3017.6	3045.4
Of which employed (1000)	324	521	644	651	654.1	723.4	725.3
(%)	11.98	18.20	22.52	22.72	22.53	23.97	23.82

a According to the Czechoslovak legislation, retirement age begins for males at the age of 60, for females at the age of 55.

Sources: Compiled from V. Seidl, *Ekonomická aktivita osob v poproductivním věku, Plánované hospodářství* No. 8 (1979) 12-19.

The decreasing trends of the shift coefficient and of capital productivity thus become explicable. Beginning with the year 1963, after the shift coefficient of the Czechoslovak industry had reached its peak in 1962 at 1.409, this indicator of the utilization of equipment has been constantly declining (1978: 1.318).

For the first 3 years of the current Five-Year Plan the centrally controlled industrial enterprises reported an increase in the number of workers of 11,098, but 22,755 newly created jobs far exceeded that number.⁵ It can be stated, therefore, that at least in the foreseeable future, labour shortages will be one of the main bottlenecks of the Czechoslovak economy.

Raw Materials, Fuels, and Energy

Czechoslovakia's early industrialization came about largely because the country contained accessible fuel resources and some metals for refining. Currently, raw materials and fuels make up 45% of all Czechoslovak imports. With the exception of uranium (of which Czechoslovakia is the second largest

resource in Europe), most of the metallic minerals required for domestic consumption have to be imported (nine-tenths of its ore and zinc, three-quarters of its copper) at prices climbing much faster than those for Czechoslovak exports of manufactured products.

A critical structural problem is that the level of consumption of raw materials and energy is still considerably higher in Czechoslovakia than in most Western and even Eastern countries, although severe attempts were made to improve the situation.

Table 4
International Comparison of Energy and Steel Consumption

	<i>Primary energy consumption to CU/1000 \$US NNP</i>		<i>Steel consumption kg/1000 \$US NNP</i>	
	1975	Growth rate 1971-75	1975	Growth rate 1971-75
CSSR	2.15	-3.0	222	-1.5
Hungary	1.72	-3.0	165	-1.9
GDR	2.23	-3.0	183	-4.2
Poland	2.08	-5.1	208	-0.9
USSR	2.48	-0.2	249	-0.7
Fed. Rep. of Germany	1.55	-1.8	147	-7.4
France	1.35	-0.7	111	-7.7
United Kingdom	2.23	-2.3	160	-5.4
Sweden	1.40	-2.7	170	2.0
Japan	1.52	-2.2	252	-6.6
USA	2.15	-1.3	106	-3.7

Source: R. Vintrová, *Materialoemkost proizvodstva v stranach SEV, Voprosy ekonomiki* No. 5 (1979), 92-101.

For the period 1975-80 a yearly reduction of the consumption of fuels and energy was planned in the range of 2-2.5%. In fact, a mere annual saving of 0.5% was achieved in the years 1975-78. On the other hand, sources of energy are not abundant in Czechoslovakia. When the two joint projects at the river Danube (with Hungary and Austria) are completed, practically all possibilities for utilization of water-power will then be exhausted. Coal production becomes more and more difficult and costly—for the North Bohemian brown coal (lignite) region an absolute decline in coal production is expected—and domestic oil and natural gas resources can only just meet 1% of the domestic demand.

Because its coal and lignite, responsible for almost 90% of electricity output, were of inferior quality, Czechoslovakia in the mid-sixties started a programme to change the structure of the utilization of primary energy sources in favour of liquid fuels and uranium. Rapid price increases for crude

oil and natural gas in the 1970s forced the Czechoslovak officials to restructure their long term energy plans, with the result that domestic coal and lignite must once more carry the main burden of energy production until enough nuclear power plants can be completed (Table 5).

It is expected that in 1980 approximately 40% of supplementary electricity will stem from nuclear sources (in 1979 only 3.2% of all electricity were produced in the Jaslovské Bohunice power plant). A step-by-step completion in 1985 of the two power plants in Jaslovské Bohunice and Dukovany is scheduled: each of them will consist of four blocks of light water reactors, type VVER 440. Four blocks of the new reactor type VVER 1000 will be installed by 1990 in Malovice, near České Budějovice. If the nuclear power plant in Northern Bohemia (its location is not yet finalised) is also completed in the late 1980s, then the overall Czechoslovak nuclear energy capacity will be in the range of 9000–10000 MW in 1990.⁶

However, if one takes into consideration the substantial delays which occurred in the completion of the first Czechoslovak nuclear power station (instead of December 1977 the trial operations of the Jaslovské Bohunice plant started on 17 December 1978) doubts may arise whether this nuclear energy target programme will actually be finished on time. The necessity of a rapid realization of that programme becomes evident from Table 5, where a normal implementation of the nuclear project is anticipated.

Table 5
Sources of Primary Energy in the CSSR

	1965	1970	1975	1980	1985
Domestic consumption of primary energy (million coal units)	71.7	81.2	93.2	106.2	118.1
Shares of imports in domestic consumption of primary energy (%)	20.4	28.1	37.0	42.0	40.2
Shares of imports in the increase of domestic consumption of primary energy (%)	53.4	86.3	97.5	78.5	23.5

Source: K. Houdek, *Bilance, potřeby, možnosti*, *Hospodářské noviny* No. 3 (18 January 1980).

At the end of September 1979 the Czechoslovak Government concluded a long-term programme for the rational input of fuels and energy.⁷ Savings of energy are foreseen first of all in production, finishing, and transportation of fuels. Table 5 already includes in the projection of the domestic consumption of primary energy the expected retardation of economic growth and the effects of the energy savings programme in the 1980s. But still the share of imports will be high enough in 1985 to encumber the balance of payments considerably, because 1984 will be the last year for the special price deliveries of Soviet crude oil (see Foreign Trade).

Transport

For many years the transport system in the CSSR has been blamed in official annual fulfilment reports for being one of the most sensitive bottlenecks of the economy. In none of the years of the current Five-Year Plan could the freight traffic meet the planned targets, and in 1980 this sector of the economy will be the one lagging behind most, when targets and actual performances of the Five-Year plan are compared. Primarily, railway transport (whereby in 1979 approximately 85% of all public ton-kilometres were conveyed) suffers from already well-known perennial problems: an inadequate number of skilled workers (the current personnel includes about 6700 workers past retirement age), imperfect synchronization of loading and unloading, non-deliveries of locomotives and cars, missing spare parts, etc. One-fifth of the Czechoslovak railway transport is already constantly occupied by transit traffic; another one-third is occupied in the conveyance of solid fuels. Czechoslovak railway officials even claim that their main railway tracks are among the most frequented tracks in the world.⁸ In mid-1978 Federal Minister of Transport V. Blažek said that the expansion of capacity and technological improvements has increasingly failed to keep pace with the sharp rise in the need to transport fuels and the development of industry and of other sectors of the economy.⁹

The vulnerability and capacity limits of the railway system became evident in the first months of 1979, when extreme weather conditions caused grievous disruptions in the entire freight transport. Delays in the supply of coal led to breakdowns in the electricity supply, and restrictions on the consumption of heat and electric current in industry as well as in other sectors and in private households had to be imposed. Frost and snow not only stopped the traffic; frozen coal had to be prized or even blasted loose from freight cars, seriously damaging them in the process.¹⁰ Since in normal times all capacities are already fully used, the authorities had to concede priority to the transport of coal, thus seriously curtailing the possibilities for the rest of the freight transport.

The extreme burden imposed upon the railway system by coal transport is still increasing. Due to rising costs of other sources of energy (crude oil, natural gas), Czechoslovakia tries to rely to a greater extent on domestic resources (coal and uranium). Coal production already has been accelerated: in 1979 it was possible to report an over-fulfilment of 440,000 tons. The effects on the transportation system, however, are evident, and the remedy can only be regarded as short-term. Since there are no reserves of locomotives and freight cars, the identification of old or damaged ones for replacement or repair is postponed, and year by year the number in need of repair increases, as well as the amount of repair which is necessary.

Problems of a longer-lasting nature also occur in truck transport. Trucking

could reduce the burden, especially on the East–West railroad lines which carry 70% of the rail transport of freight, but up to now only parts of the highway that will traverse the length of the country have been completed. In the meantime the existing road system has to absorb the steadily increasing individual traffic, too; the poor condition of the road surfaces makes large investment programmes for the coming years inevitable. At the same time there is no question that even more investments will be needed for the railroad system.

Foreign Trade

In the 1970s a substantial change occurred in Czechoslovak foreign trade (Table 6). Until 1972 the overall trade balance showed a surplus of exports because quantities of manufactured goods constantly exceeded imports of raw materials, fuels, and foodstuffs. Beginning with the year 1973 Czechoslovakia's foreign trade went into the red. Even trade with the socialist countries has resulted since 1974 in increasing deficits. Although Czechoslovakia could, to some extent, raise the prices of her own exports, prices of imports rose much faster (Table 7).

Table 6
Terms of Trade in Czechoslovak Foreign Trade (1970 = 100)

1971	1972	1973	1974	1975	1976	1977	1978	1979
99,21	96,21	96,20	96,50	90,39	87,98	85,59	83,94	79,40

Source: Calculated from publications of the Federal Statistical Office of the CSSR. The figure for 1979 was given in *Politická ekonomie*, No. 1 (1980).

Czechoslovakia, extremely dependent on imports of raw materials and fuels, was seriously hurt by the price increases for these products, although by far the greater part is obtained from the East, primarily from the Soviet Union, at prices still below the (Western) world market price level.

The price advantages must disappear gradually in the years to come, because intra-CMEA foreign trade prices follow the development of the world market prices except that they are delayed (Moscow price formula of 1975). However, until 1984 Czechoslovakia benefits from a special credit agreement with the USSR of 1966, guaranteeing her for the years 1971–84 an annual shipment of 5 million tons (m.t.) of crude oil at the extreme low price of R15/ton (= \$US 22.6/ton). In 1980 these 5 m.t. represent about one-quarter of total oil imports. 13.8 m.t., i.e. the rest of the Soviet deliveries, will be charged at \$US143.6/ton, which still is substantially below the current world market price.¹¹ These price advantages are repayment of a 500

Table 7
Price Increases for Czechoslovak Imports of Selected Raw Materials and Fuels from the Soviet Union, 1974-78

	Soviet share of Czechoslovak imports (%) 1978	Price increase 1974-78 (per unit f.o.b.) 1974=100	Additional costs resulting from the price increases in million Kcs. f.o.b.
Crude oil	95	300	+ 4467
Iron ore	84	92.6	- 81
Coal	57	213.4	+ 386
Cotton	67	158.1	+ 206
Total			+ 4978

Source: F.-L. Altmann and J. Sláma, *Strukturentwicklung der tschechoslowakischen Wirtschaft und ihre Rückwirkung auf den Außenhandel*, mimeographed, December 1979, p. 89, 91.

million roubles credit which Czechoslovakia had granted the USSR during the years 1966-74 in the form of deliveries of technical equipment and consumer goods. Undoubtedly this credit arrangement was one of the best deals Czechoslovakia ever signed, if only because in 1980 it saves her approximately \$US1.6 billion in her oil bill.

Exports of machinery and equipment plus deliveries of manufactured consumer goods traditionally balance the Czechoslovak imports of raw materials, fuels, and foodstuffs. In the latter years, however, Czechoslovakia has not been able to expand exports of machinery to the extent which would be necessary to compensate for the rapidly increasing balance-of-payments deficits from raw material imports. A Czechoslovak study mentions that its export prices for engineering products destined for the West rose by only 4.2% annually during 1976-78, whereas the price increases in Western machinery exports attained 8.8%.¹²

Table 8 shows how the country is losing its position in the world trade of engineering products:

Table 8
The Participation of Czechoslovakia in Exports of Machinery in Different Regions (%)

Year	CSSR shares in exports in the			
	World	CMEA	Industrialized West. countries	LCDs
1955	2.49	17.2	0.29	1.25
1960	2.92	17.4	0.38	1.37
1965	2.84	18.0	0.28	1.18
1970	2.11	15.4	0.27	1.3
1976	1.59	10.4	0.27	0.64

Source: R. Zukal, *Vliv vnějších vztah na čs. hospodářství*, in: *Ekonomická revue* No. 3 (1979).

Years ago an article in a special foreign trade journal stated that Czechoslovakia was participating in world trade with machinery and equipment primarily with products that were extremely material-intensive and without good market prospects for the future, whereas products of modern branches were under-represented.¹³ In addition, Czechoslovak foreign trade organizations complain that the producing enterprises do not fulfil their obligations for export.

The value of delayed deliveries of machinery products and other investment goods in trade with the USSR alone amounted to 125 million roubles in 1979, but even more complaints were reported from foreign trade organisations trading with the West. Therefore, Czechoslovakia had to increase not only her exports of raw materials such as wood and metallurgical products, but also of manufactured consumer goods though the latter are not extremely abundant on the domestic market and competition for these products on Western markets is severe. It is not clear how Czechoslovakia can solve this fundamental structural problem in the 1980s.

What can be expected from CMEA integration for the Czechoslovak economy? In 1978 the value of Czechoslovak CMEA exports of products from specialized and/or co-operation production amounted to 1.46 billion roubles, roughly 25% of the entire Czechoslovak CMEA exports. Of these so-called specialized exports 87% are deliveries of engineering products and 9% are products of the chemical industry. The shares of the individual CMEA member countries in the 1978 export of specialized Czechoslovak engineering products were: USSR 67.1%, Poland 12.7%, GDR 12.1%, and Hungary, Romania, and Bulgaria together 12.1%.¹⁴

These figures do not say too much about the real importance of CMEA integration for Czechoslovakia, which, after Bulgaria, is the country trading most intensively with the east (73% of trade turnover), but without any doubt Czechoslovakia is of extreme importance for the CMEA nuclear energy programme for the 1980s. In close co-operation with the Soviet Union (Technoenergoprojekt) Czechoslovakia will provide the CMEA member countries up to 1985 with twenty light-water reactors, type Voronež VVER 440, and later (after 1986) also with the second generation reactor Voronež VVER 1000.¹⁵ During the 1980s Czechoslovakia will deliver half of the total equipment for nuclear power stations in the non-Soviet CMEA member countries.

On the other hand Czechoslovakia will be even more dependent in the 1980s than in the 1970s on Soviet deliveries of raw materials and fuels. Thus integration for Czechoslovakia primarily means closer co-operation with the Soviet Union, and this is the arrangement which has been concluded in Moscow early this year: a long-term programme for the development of specialization and co-operation in production between the USSR and the

CSSR for the years 1980–90 had been discussed at the 20th interstate commission, similar to programmes that have been signed already between the USSR and the GDR and Bulgaria.¹⁶

III. Consumer Welfare

Price increases in mid-1979 raised consumer price index by 3%, thus limiting the increase of real monetary incomes of the population in 1979 to a mere 0.6%. This quasi-stagnation was accompanied by a distinct gap between produced and utilized national income. Due to the unfavourable development of the terms of trade, Czechoslovakia had to produce and to export a greater quantity of goods in order to be able to pay for the same quantity of imports than the year before. Therefore, in 1979 the 2.7% increase of produced national income corresponds only to a 1.3% increase of the utilized national income. Partly as a result of this development, the annual average growth rate of personal consumption per head slowed down during the sixth Five-Year Plan period to just 1%.

There is no expectation in the coming years that a change in this trend may occur. Plan data for 1980 also take into account a difference between produced and utilized national income of 1.5%. High investments, caused by the above-mentioned deficiencies in energy, transport, and infrastructure, as well as large expenditures for technical development and modernization in industry, restrict the possibilities for improvements in the supply of consumer goods to an absolute minimum. Preservation of the achieved standard of living is much more the question of the 1980s, especially if one takes into account the problems and financial burdens which inevitably are in store for Czechoslovakia already in the nearer future in the sphere of preservation and restoration of natural environment.¹⁷

IV. Conclusions

There are almost no reserves Czechoslovakia can fall back to overcome barriers to economic growth. Probably fundamental improvements in the system of labour management could solve some problems in the distribution of labour force, because certainly a great part of workers employed in administration and even in branches of material production could be reallocated in a much more effective way, but this would cause tensions among workers which the political leadership must be nervous about. Furthermore, such a reallocation of labour force needs time and also presupposes substantial modernization in the technical equipment of production. Therefore, shortage of labour will remain one of the limiting factors of economic growth.

Even more restricting will be the problems caused by shortages and price developments of energy and raw materials. Until 1984 Czechoslovakia benefits at least in oil supply from price advantages in her imports from the Soviet Union, but only high investments for improving technological level and quality of production in order to economize the utilization of all resources can bring about any positive prospects for the long-term future. High investments are also needed for the development of infrastructure, primarily for the transport sector.

The observed negative trends in the international competitiveness of the Czechoslovak economy aggravate the solution of these problems. Furthermore, they narrow the slender margin for improvements in consumer welfare.

It is not very surprising that—as usual after some years of poorer economic performance—the request for economic reforms became part of the efficiency efforts. After 3 years of the so-called “complex experiment”, where 150 enterprises tried to perform according to new plan indicators and under the pressure of increased material stimulation, a general attempt to improve the planning system will be carried out together with the start of the seventh Five-Year Plan, i.e. beginning with 1981. The published abstract of a “Collection of Measures for the Improvement of the System of Planned Management of the National Economy after 1980” in the daily party news enclose a bundle of changes in the fields of general economic planning, material stimulation, and in organization and management on the enterprise level.¹⁸ Obviously these measures are following, at least partly, similar approaches in the Soviet Union. Since a more intensive investigation of economic reforms in Czechoslovakia is undertaken in a separate paper for this conference (V. Holešovsky), no further discussion is included here. But it seems to be clear that in no sense can one speak of a real fundamental economic reform such as the previous ones of the mid-sixties in Czechoslovakia and the New Economic Mechanism in Hungary. It is, therefore, extremely questionable, whether these changes will have any positive effects on the economic performance of the 1980s.

Notes

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16. *Ekotass*, 18 February, 1980.
17. First discreet discussion started already even in Czechoslovak official publications. See, for example, Vintrová *et al.*, op. cit., p. 40.
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GDR: Prospects for the 1980s

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The Challenge

The German Democratic Republic's economy has grown continuously during the 1970s. The data published by the Directorate of Statistics in East Berlin¹ not only show the greatest increase in output ever reported as a result of the "unity of economic and social policy" that was proclaimed as the nation's "main task" at the Eighth Party Congress of the Socialist Unity Party in 1971; but at the same time, ever since the Ninth Party Congress in 1976 it has been emphasized that "social policy has assumed a new dimension" and that the "program of full employment, national prosperity, growth, and stability" will be continued during the 1980s—according to Party head Honecker² at the 11th SED Central Committee Conference in December 1979.

Every new decade has been ushered in with equally optimistic proclamations. Let us only recall the early 1970s slogan of "Überholen ohne einzuholen" ("surpassing without catching up") relating to the achievement of a higher developmental level than Western industrial nations. In contrast to reports about the "bleak future prospects for nations under capitalism", the superiority of the "socialist planned economy"—as the GDR's economic system is designated and defined by the national constitution—has been emphasized, especially in contributions³ published to commemorate the 30th anniversary of the German Democratic Republic in 1979. It is claimed that the system of central economic planning not only realizes the *macro-economic goals* of steady economic growth, full employment, currency stability, and external economic equilibrium better than Western economies, but, in addition, that it achieves all these goals concurrently and without social conflicts. Problems such as the proportionate distribution of income and the stability and solidity of public finances, including pension funding, are said to have been solved, and at the same time there are supposedly better sociopolitical conditions for minimizing the strain on the environment and for effective environmental protection.

Judging by the often highly self-critical appraisals that appear in the economic literature, as well as statements made by the Party and economic leadership, we might conclude that the propositions mentioned above are examples of how economic propaganda overreacts in an attempt to cover up overall economic instability, thereby employing agitative propaganda as a defense mechanism. The compatibility claimed for the above economic goals—especially the resolution of the “magic square”—represents a *challenge* by the GDR economy which is not directed at the economist alone—a challenge to analyze (and this must always include comparative analysis) the GDR economic system and its developmental possibilities.

Decreasing Economic Growth

The *Program of the Socialist Unity Party of Germany*⁴ adopted at the Ninth Party Congress in 1976 repeatedly refers to the GDR economy's orientation toward growth and performance and established “stable economic growth” as a long-term strategy. Since economic growth is measured by the rate at which “national income” increases, in the GDR as well as in the other socialist nations “maximization of national income” as an overall social goal dominates economic policy.

Obviously this objective has been achieved. However, it is worth noting that planned annual output quotas have not been reached since 1976—and thus this objective of the 1976–80 Five-Year Plan was also not attained. The official explanation, which also appears in the plan fulfillment reports, points to the effects of exogenous factors, especially unfavorable crop yields and rising world market prices.

In contrast to this official view, Koziolk emphasized endogenous factors, i.e., “inadequate utilization of material,” “delay of investment,” “down time,” “insufficiently qualified workers,” “high repair costs,” “damages,”⁵ and others.

When we look at these factors, it becomes clear why the Party and the economic leadership have been placing special emphasis on increasing efficiency—not beginning with, but in particular since Honecker's proclamation of the “Ten Points Concerning Intensification”⁶ in October 1975. Efficiency problems in the GDR are for the most part inherent in its economic system, and to this extent are “homemade”. They become especially acute when additional economic problems such as poor harvests⁷ or a worsening of the terms of trade occur.

During the 1980s overall economic growth may well continue to decline. Even though “Marxists . . . naturally . . . do not (engage in) statistical number games with prognoses”⁸, it is still striking that the long-term

planning objectives for up to 1990 which Honecker designated in 1973 are reproduced exactly in one publication, while in another they are reported as being half a point lower (Table 1). However, during this decade a growth rate of 2–3% for national income and of 2% for the national product is more probable, since growth rates are likely to be higher during the first half of the decade than during the second. One reason for such an optimistic prognosis is that the GDR economy—as can be illustrated in numerous individual cases—has considerable efficiency reserves available to it.

For a number of reasons it seems probable that during the 1980s the goal of economic growth will no longer be accorded priority among the economic goals propagated by party and economic leaders in the socialist nations. First of all, it is worth noting that the concept of growth no longer receives top billing in many speeches by the Party leadership. In the second place, Mittag pointed out at the 11th Conference of the Central Committee, that—within the political leadership—“some hold the view that the less economic growth there is, the better this is for the national economy.”⁹ Thirdly, advocates of political economy discuss the optimal rather than the maximal economic growth, where “maximization of consumption is set up as the central goal.”¹⁰

To sum up, a number of factors seem to indicate that, at the beginning of the 1980s, the GDR's economic leadership is going through a process of reorientation regarding the continued pursuit of economic growth as an important goal.

Continuous Overemployment

The right to work is assigned a prominent role in Marxist–Leninist theory, the programs of Communist parties, and the constitutions of socialist countries. When this “most basic of human rights” is not guaranteed, all references to “social security, freedom, humanity, and the effectiveness of a social system are just empty talk;” “capitalism,” on the other hand, “cannot ensure workers” continued full employment or offer them “such an awareness of social perspectives.”¹¹ Manpower shortages are portrayed as being typical under the socialist system, and one way in which central planning is superior, in contrast to “high and continually increasing” unemployment in systems which are not based on central planning.

International statistics substantiate the extremely high rate of employment, especially for women, in COMECON countries, which has continued to rise during the 1970s.

The estimate of human capital to be found in Table 2 reveals a considerable surplus of women in the resident population, among pensioners (although here it should be kept in mind that women can retire 5 years earlier than men), and, interestingly, among full-time students. Despite this surplus,

Table 1
Quantitative Goals of the GDR Economy for 1990

Indicator	Volume				Rates of increase (%)					
	1970	1980	1980		g	1980	1990		g	
			1970	1990			g	1970		
Produced national income (billions of Marks)	(a)	109	182	290	67	5.3	59	4.8	166	5.0
	(b)	109	—	266	—	—	—	—	144	4.6
	(c)	109	175	235	61	4.8	34	3	116	3.9
Industrial production (billions of Marks)	(a)	160	287	640	79	6.0	123	8.4	300	7.2
	(c)	—	290	600	81	6.1	107	7.5	275	6.8
		—	—	—	61	4.8	85	6.3	250	6.5
Consumption (billions of Marks)	(a)	87	130	217	50	4.1	66	5.3	150	4.7
	(c)	—	125	167	44	3.7	34	2.9	92	3.3
Net receipts (billions of Marks)	(a)	—	—	160	—	—	28	2.5	84	3.1
	(b)	80	122	150	53	4.3	20	1.8	72	2.7
Manpower (working persons in millions)	(a)	—	—	—	—	—	32	2.8	100	3.6
	(b)	7.8	8.2	8.4	6	0.6	2	0.2	8	0.4
Housing construction (thousands of apartments)	(a)	76	163	250	115	7.9	53	4.4	230	6.1
	(b)	—	—	—	—	—	—	—	—	—

Sources: (a) "Main directions of economic development" according to a "long-term basic conception for the development of the economy" agreed upon by the Council of Ministers of the GDR on May 3, 1972, quoted here from H.-H. Kinze and R. Poller, *Entwicklung und Probleme der langfristigen Planung in der DDR, Wissenschaftliche Zeitschrift der Hochschule für Ökonomie "Bruno Leuschner"*, 23, (1) (1978) 12 ff., Berlin (East).

(b) H.-D. Haustein and D. Ivanov, *Technisch-ökonomisches Niveau der Produktion und Erzeugnisse — Analyse und Planung*, p. 80, Berlin (East), 1979.

(c) Author's estimates.

(d) Estimated on the basis of prognoses of the *Hochschule für Ökonomie zur Entwicklung des Arbeitsvermögens*.

(e) Estimated on the basis of the GDR's long-term program for housing construction.

Table 2
Survey of Population, Manpower, and Manpower Reserves 1978 ('1000)

	Total	Males		Females	
		('1000)		(%)	
Resident population (31.12)	16,751	7,831	8,920	46.7	53.3
Children ¹	3,240	1,661	1,579	51.3	48.7
Pensioners ²	3,084	971	2,113	31.5	68.5
= Population of working age	10,427	5,199	5,228	49.9	50.1
Disability pensioners of working age ³	240	110	130	45.8	54.2
= Population capable of working and of working age	10,187	5,089	5,098	50.0	50.0
+ Working persons of retirement age ⁴	600	275	325	45.8	54.2
= Population fit for work	10,787	5,364	5,423	49.7	50.3
.....					
Working persons ⁵	8,788	4,682	4,106	53.0	46.7
Reported	8,118	4,052	4,066	49.9	50.1
Estimated	670	630	40	94.0	6.0
+ Apprentices	503	286	217	56.9	43.1
+ Full-time students	204	69	135	33.8	66.2
+ Pupils of working age	600	310	290	51.7	48.3
Gainfully employed persons and population in educational and training programs	10,095	5,347	4,748	53.0	47.0
Manpower reserves					
Including persons in educational and training programs	2,009	682	1,327	33.9	66.1
Excluding persons in educational and training programs	702	17	686	2.4	97.6

Annotations:

- (1) Children under 14 years of age plus seven-twelfths of those aged 14–15.
- (2) Males: 65 years and older; females: 60 years and older.
- (3) Only disability pensioners receiving payments from "Sozialversicherung der Arbeiter und Angestellten" are reported, plus the estimated number of those insured under the "Staatliche Versicherung der DDR".
- (4) Estimated on the basis of statements that 600,000 old-age pensioners make up 7% of the entire working population and that one-third of all male and one-sixth of all female old-age pensioners are employed.
- (5) Estimated numbers of the members of the People's Army, the police force, of paramilitary and social organizations, persons employed in uranium ore mining, in armament plants, and penal institutions.

Sources: *Statistical Year Book 1979 of the GDR. Das Gesundheitswesen der DDR 1979*. See Ursula Lange, Helmut Buttner, *Wirtschaftsstatistik*, pp. 16 ff., Berlin (East) 1976.

when all other employed persons are included, it turns out that there are half a million more men than women in the labor force. This result does conflict with official statistics but, considering developments in other countries, it seems both plausible and in keeping with the following excerpt: "When students, members of the National People's Army (NVA), etc. are included, we can proceed from the assumption that today approximately 95% of the human capital available to society is being utilized."¹²

Thus it can be said that the GDR no longer has any appreciable labor reserves at its disposal. The employment rate, i.e., the ratio of employed persons and those in training programs to the employable population, is 99.7% for men and 87.6% for women, for an average of 93.6%. The participation rate for employment according to this estimate is 55.5% (excluding apprentices: 52.5%), and is significantly higher for men (63.4%, excluding apprentices 59.8%) than for women (48.5% and 46.0%, respectively).

For the 1980s the following prognosis can be made concerning developments in the resident population of working age—in this case, men aged 18–65 and women aged 18–60:

- (1) Twice as many women as men will become eligible for pensions.
- (2) More men than women will become of working age.
- (3) Because of this, considerably more men than women will enter the work force.
- (4) While in 1978 the resident population of working age amounted to 9.4 million, with a slight surplus of women, by 1990 it should be about 10 million, with a clear surplus of men.
- (5) After 1990 the working population can be expected to stabilize for a while and then decline.¹³

However, the above changes will not occur at the same rate in all regions of the GDR. On the contrary, already existing and sometimes considerable differences in population growth and utilization of human capital will become still greater. While in areas of industrial concentration, where a large percentage of women and pensioners are already employed, the population of employable age will already exhibit a tendency to decline before 1985, in the GDR's northern regions growth of the population as a whole will probably continue up to 1990 and beyond. Therefore, to prevent extensive internal migration from north to south it would be imperative to exhaust labor potential in the northern part of the GDR by means of an employment-creating investment policy.¹⁴

As far as the structure of economic sectors is concerned, it is likely that the proportion of workers employed by the service sector will continue to

increase. By 1990 the tertiary sector, which accounted for just under 40% of all workers in 1978, will probably become the dominating economic sector, due to reduced employment in agriculture (in 1978 9%) and in industry (51%).¹⁵

With reference to the qualification structure of workers in the GDR, a continued decrease in the proportion of unskilled and semiskilled workers can be expected. By 1990 8% of all employed persons (in 1980: 6%) are expected to hold a university degree, 12% (10%) diplomas from technical institutions, and 60% (58%) trade school certificates.¹⁶

During the 1980s working time policy will continue to be directed at reducing the standard work week by better utilizing female labor and decreasing the number of women holding part-time jobs. The party program of the Socialist Unity Party, as well as the Labor Code (*Arbeitsgesetzbuch* — *AGB*) which went into effect on January 1, 1978, announce that there will be a “continued step-by-step transition to the 40-hour work week without pay reductions and while maintaining the five-day work week.”¹⁷ Thus the GDR will require a relatively long period of three decades to realize this traditional goal of trade-union movements. It began with the transition from a 48- to a 45-hour work week in 1957 and the introduction of a five-day work week of 43.75 hours in 1966. However, since by law multi-shift workers have had a reduced 42-hour work week and full-time working mothers with several children a 40-hour work week since 1972—and this preferential treatment is supposed to continue, introducing a 40-hour work week for full-time workers in general would mean a 38- and 36-hour work week, respectively, for these two groups of workers.

Overemployment—in other words disguised unemployment—can be found in agriculture, the area of economic administration, and among the workers involved in auxiliary processes.

In summary, at least two reasons can be suggested to explain the overemployment described above, both of which result from a defective allocation mechanism. For one thing, labor as a production factor is extremely cheap. This can be seen not only by making wage comparisons, but also in the fact that less than 15% of industrial turnover is used to pay for wages and related costs.¹⁸ Secondly, there is a lack of balance between the production factors labor and capital: not only do price increases for capital surpass wage increases, but in addition the fixed capital assets of the enterprises are subject to a tax on capital (the “production funds levy”).¹⁹ This tax—in contrast to wages—does not enter into cost calculations and, what is more, must be paid from enterprise profits. The enterprises can at least partially realize the objective of maximizing their net profits—primarily to increase bonus funds and, last but not least, because they are free from competitive pressures—by delaying replacement of labor through machinery,

and thus the production factor capital is only slowly substituted for the production factor labor.

A number of measures are supposed to persuade the enterprises to utilize manpower more efficiently. Among them is the "Fewer Workers Produce More"²⁰ campaign, which aims at reducing manpower requirements by 10–20% in selected large enterprises by 1985. In addition, the "Labor Offices" at district level have been given a say concerning the use of manpower, which is to be minimized by means of a fine that must be paid from enterprise profits whenever more manpower than foreseen in the plan is used. However, these goals can probably only be realized on a long-term basis, so that overemployment is likely to continue during the 1980s.

Official Increases in Consumer Goods Prices

With regard to currency stability, which is seen only in relation to changes in retail sales prices—and which therefore has only little to do with the goal of political stability described at the beginning of this paper—the GDR occupies an absolutely unique position among all the nations of the world: during the 1970s only the "purchasing power of the Mark of the German Democratic Republic" increased absolutely; the Directorate of Statistics cites price increases solely for the items "alcoholic beverages" and "postal and telegraphic services". In this respect the GDR also contrasts sharply with the other members of the Council for Mutual Economic Assistance, some of which have published significant price increase rates for the area of private consumption (Table 3).

However, it is interesting to note that the formulations previously used in reference to consumer price stability are no longer employed. Beginning with the Eighth Party Congress of the Socialist Unity Party in 1971, they were expanded to include "all products on the market" at that time. Because of this, and also because of the "bloc solidarity" with the other socialist nations to which Honecker has referred for the first time, it would not be a surprising price-policy development during the 1980s if the GDR also began to report openly at least some of its increases in consumer goods prices. It is especially important to note that a change has taken place in price theory, too.

The Directorate of Statistics publishes no data about gross, net, or real wages in the GDR. The "average monthly earned income of a full-time worker or employee in the socialist economy"—in 1979 approximately 1000 Marks—also includes premium pay, bonuses for reducing costs, and certain social allowances such as children's allowances and Christmas bonuses, special allowances for spouses, and for abolishing food ration cards. Based on information in specialized literature this subject,²¹ we can estimate that in 1979 a full-time worker's gross wages amounted to about 870 Marks (the

Table 3
The Official Price Indexes^(a) for Consumer Goods (A) and Foodstuffs (B) in Selected COMECON States during the 1960s and 1970s

Country	1978 (1970 = 100)		1970 (1963 = 100)	
	A	B	A	B
German Democratic Republic ^(b)	96.3	99.7	99.3	100.5
Soviet Union	100.7	101.9	98.3	99.5
Bulgaria	102.8	104.7	103.2	107.2
Czechoslovakia	104.6	104.1	111.5	101.4
Romania	105.4	108.1	103.4	107.7
Hungary	130.8	132.1	102.4	101.2
Poland	134.1	136.8	109.4	110.8

^a The price indexes reported above cannot be compared because of different modes of computation. The indexes are generally based on retail sales prices fixed by the Government.

^b For international statistics the GDR reports the price indexes "For workers' and employees' households" which differ slightly from those "for the population" (1978: A = 98.2; B = 99.6).

Sources: International Labour Organisation (ed.), *Year Book of Labour Statistics 1979* (and 1973), p. 542 (and p. 703), Geneva, 1980 and 1974.

minimum wage set by law is 400 Marks) and net wages to about 740 Marks. If previous trends continue, gross wages will probably rise to about 1300 Marks a month by 1990. However, assuming price increases are officially reported, only a minimal increase in real wages would occur. Thus it seems more likely that the GDR is changing its wage policy for political and economic reasons, mainly in order to improve achievement motivation. It would not be at all surprising if the income tax were abolished²² and there were still other noticeable increases in net wages.

While "earned income" (which, it is interesting to note, is not designated as such in the *Statistical Yearbooks* of the Member Nations of COMECON) must be characterized as a peculiarity of GDR statistics, "real income" represents a special statistical feature common to all socialist countries. By no means is it equivalent to nominal income adjusted for prices, for the official price indexes employed do not reflect actual price trends.²³

It can be assumed that during the 1980s "benefits from social funds" will grow faster than wages and bonuses, as the Party program has proclaimed. On the whole, both the relative and absolute share represented by allocated consumption will increase significantly.

Let us conclude by noting three potential threats to realizing the goal of stability. First of all, the savings account balances of the population now exceed annual retail turnover or, in other words, there is a large surplus of purchasing power. One way to absorb it is by increasing the availability of the luxuries and semi-luxuries that are in demand, but it also finds an outlet in nonorganized markets. Obviously, then, wage increases are not going to provide sufficient motivation for improved job performance, since such an excess of purchasing power already exists. In the second place, the number of barter transactions in which scarce goods are exchanged is likely to increase. Numerous examples of such transactions can be found in the advertising sections of provincial newspapers. Thirdly, there is a partly official ("Intershop"), partly unofficial market in the GDR where almost all goods and services are available in exchange for foreign currency, especially for West German Marks. All three of the above factors are not only clearly detrimental to the stability of the "Mark of the GDR", but also demonstrate that even in a centrally-planned economic system it is not possible to eliminate the inflationary pressure resulting from excess demand by setting prices and wages.

Mounting Foreign Trade Burdens

The economic objective of foreign trade equilibrium can be defined narrowly in the sense that domestic markets are not affected by uncontrolled influences from foreign markets. This protection from outside markets

guarantees the State monopoly in reference to the external economy which is established in the GDR constitution, in particular a monopoly on foreign trade, external transport, and foreign exchange control.²⁴ A number of consequences ensue from the specific regulations entailed by this system. For one thing, the State budget heavily subsidizes GDR exports by means of a "price compensation fund". Secondly, the "price explosions" were only partially reflected in the domestic market, and with a time lag. Third, and finally, it should be remembered that, with respect to level and dynamics, world market prices, COMECON contract prices, and industrial prices could be subject to widely varying trends.²⁵

During an interview the chairman of the People's Chamber Committee on Budget and Finances estimated additional financial burdens at 24 billion Valuta Marks for the years 1973–79 and another 4.6 billion Valuta Marks in 1980.²⁶ Thus 5–10% of exports these years (1976–80) were necessary in order to compensate for price increases in the external balance of trade, i.e., that trade expressed in the statistical accounting unit "Valuta-Mark".

Although its debts to the West amount to almost nine billion US dollars, the GDR is in a relatively favorable position compared to the other nations of East Europe: Due to special inner German relations, its foreign exchange receipts probably amount to about 2 billion US dollars annually.

But ensuring adequate supplies of raw materials is an even more urgent problem. On the one hand, the agreements made with the Soviet Union during the course of plan coordination for 1981–85²⁷ indicate that the Soviet Union is no longer willing or able to adjust its shipments of raw materials to the increased rate of consumption expected in the GDR, even if it can raise its prices (in 1981–85 reciprocal deliveries of goods are equivalent to 48 billion transferable roubles in COMECON 1979 prices). The same quantities of mineral coal and copper as in 1976–80 were agreed upon, while the increase of petroleum deliveries by just under 8% is probably equivalent to fixing the amount of petroleum supplies for 1980. Hence, securing necessary raw material imports is closely connected with the GDR's increased political activity in Africa and in the Arab world.

In addition to the import problems outlined by Honecker, the additional exports that have become necessary also detract from possibilities for economic development. Assuming that the investment rate remains constant during the 1980s, it will probably not be possible for the GDR to renew fixed assets rapidly, due to the structure of its commodity trade with other Eastern European countries. At the same time, the fact that more exports of consumer goods to the West will be necessary means that these goods cannot be made available domestically.

Finally it should be noted that the foreign policy pursued by the Soviet Union during the 1980s may well result in additional burdens on the GDR

economy. However, as in the past a quantification of this military and development aid will probably be almost impossible.

Factors Impeding Economic Growth

Despite the critical assessments made above—and what area of economics is free of problems?—the simultaneous realization of these macro-economic goals seems to be less problematic in centrally planned than in decentralized economic systems. The weaknesses of socialist planned economies are more evident in other areas and have the following points in common:

- (1) All the East European countries criticize the bottlenecks that arise, so they are not limited to the GDR.
- (2) The problems are not new, but rather “constant companions” of socialist economic development.
- (3) Not infrequently basic reforms in the economic mechanism are demanded to overcome these problems.

In so far it definitely seems justifiable to characterize these limiting factors as inherent in the system. The economic development of the 1980s will be significantly influenced by the degree of success attained in utilizing the reserves that will become available if these weaknesses are alleviated or eliminated. However, it is quite obvious that it is not a question of effects consciously tolerated by the economic leadership. Thus, at a professional convention of economists in 1979 it was strongly and rightly emphasized that “any comparison of economic and social effects according to the slogan ‘more humane, but expensive’ is inadmissible;” such an approach can lead “all too quickly” to passing off “social effects as justification for a lack of economic efficiency.”²⁸ Thus the question of economic efficiency is given priority and is also an essential prerequisite for social policy improvements.

Several references have already been made to the relatively low utilization and productivity of the production factors. The more efficient combination of production factors considered necessary could be encouraged by making the factor labor more expensive.

It should also be noted that ecological issues are receiving an increased amount of attention.²⁹ Although environmental protection concerns have been included in national economic planning since 1973, the GDR is confronted with “very complicated problems” and still has “a need to catch up” in “important areas.”³⁰ Due to the steady decrease in³¹ as well as increased danger of erosion to a third³² of all arable land, reassessing land as a production factor will probably become an ever more urgent issue.

Considering the increased scarcity and cost of raw materials, the GDR’s

uneconomical utilization of resources must be viewed as an especially serious limitation on future economic growth. Judged by international standards, specific consumption of materials, raw materials, and energy is excessive.

The losses which result for the overall economy are assessed as follows:

“In reference to the GDR it is said that only about 30–50% of the woods and metals obtained are actually incorporated into products of the metalworking and wood-processing industry. In the power-producing industry only about 15–20% of the caloric content available in the primary energy source can be converted to usable energy with current equipment and technology. Energy specialists estimate that specific energy consumption for industrial commodity production is currently 25–30% higher than optimum international values. One result is that, for example, electrical power consumption per industrial worker in GDR industry, which already exceeded 28,000 kWh in 1975 (1972: 27,000 kWh), is higher than in some of the developed capitalist nations, such as England, France, and the Federal Republic; however, this higher energy consumption is not adequately reflected in the development of labor productivity.”³³

The most important goal of a future-oriented energy policy must therefore be to utilize energy reserves more effectively and thus reach a turning point in the relationship between economic growth and increased use of raw materials:

Higher costs for raw material imports as well as increased expenditures for developing the GDR's own raw material deposits—for example, brown coal production is supposed to increase from 250 million tons to 300 million tons annually—will therefore significantly influence future economic development. If the GDR does not manage to reduce considerably its consumption of energy, raw materials and petroleum—which is said to be 20–30% higher than comparable figures for Western industrial nations³⁴—and arrive at international levels of consumption, then not only will there be a still greater drain on the GDR economy but it will become increasingly difficult for the GDR to secure adequate supplies of raw material and energy. It should be noted here that the GDR's defective allocation mechanism will decisively influence this critical and crisis-prone aspect of its future economic development.

It has been repeatedly emphasized in the GDR that accelerating scientific and technical progress is a “central problem” and “basic issue in the management, planning, and stimulation of the overall national economy.”³⁵ The widening “technological gap” seems to be characteristic of the GDR's position on the world market: with the exception of a few first-class products,

the line of goods exported by the GDR has not proved to be competitive. In this context management's traditionalist behavior, lack of incentive, and defects in price formation seem to be as handicapping as the concentration of production in a few monopolist enterprises.

To an ever greater extent, monetary problems dominate economic policy discussions in the GDR. The "unity of material and financial planning"³⁶ that is claimed—i.e., a balanced relationship between constant plan prices and current prices—is lacking, so that the resulting strain on the relationship between "stability and flexibility"³⁷ poses a basic problem for socialist planned economies.

The symptoms of this financial crisis appear in the area of consumption as discussed earlier, just as they can be found in investment—for example, in extended production deadlines, price rises greater than the planned ones, in measures not foreseen in the plan ("illicit investments"). "New questions" of cost and price policy, "the resolution of which is of both practical and theoretical importance,"³⁸ remain unsolved, as does the issue of international financial relations—for example, setting prices for foreign trade, the convertibility of the "Mark of the GDR",³⁹ and determining the optimal volume of credit.⁴⁰

Finally, in good part due to an increased need to export, domestic supply problems will probably become even more severe.

Reforms Within the Economic System?

There are basically three reasons why the GDR's economic leadership might carry out economic reforms during the 1980s:

- (1) The political necessity—since it intends to remain in power—of countering a dramatic worsening of economic development.
- (2) The growing realization that it is mainly factors inherent in the system which interfere with important proportional relationships in the economy.
- (3) The lesson to be learned from a study of past experience with the economy, i.e., that a "New Economic Policy" could mobilize a large amount of reserve capacity.

No lasting changes in the economic mechanism are likely to occur during the first half of the 1980s. In current discussions the term "economic reform" is rarely employed, not even for the period after 1963.

The importance of long-term planning and forecasting as part of the control system will probably increase. On the basis of a "Resolution Concerning the Functions and Organization of Long-term Planning" taken

by the Council of Ministers in 1972, work is currently being done in the following areas:

- (a) a “long-term basic concept for the development of the national economy”;
- (b) “long-term concepts and programs for important social, scientific-technological, and economic tasks”; and
- (c) “long-term concepts for developing the sectors, branches, and regions”⁴¹ of the economy.

However, with only a few exceptions—for example, the housing construction program—as little information is made available about the progress of this work as about the results of long-term model programs and plan coordination within COMECON.⁴² This is not surprising, since the “diverse reciprocal relationships among the various component parts of long-term planning”—especially the emphasis on the Five-Year Plan as the “primary steering instrument for the development of the national economy”⁴³ and also “the common aspects and the specifics of five-year planning and annual planning have not yet been adequately investigated.”⁴⁴ Furthermore, a strictly quantitative analysis of previous economic development would probably not provide many insights into the structural changes that are considered necessary for the 1980s. For this reason the present study has concentrated on structural problems rather than on providing a quantitative prognosis.

In conclusion two significant aspects of the management system should be discussed briefly. First of all, it can be assumed that there will be significant personnel changes in the top economic leadership. Apart from the possible effects of the Soviet change of leadership, it can be seen that some important personnel changes will take place in the Politbureau, if only because of the advanced age and poor health of some of its members, and the same applies to the top government leadership. Although in the past relatively long terms of office were typical for the 44 members of the Council of Ministers, in the future there will probably be more frequent staff changes within this most important government organ for economic management. Second, it can be assumed that a reordering of economic priorities will take place.⁴⁵ The issue of increasing overall economic efficiency—expressed in terms such as “effectiveness,” the “push toward rationalization” (*Rationalisierungsschub*), “intensification,” “combine efficiency”—will gain in significance, as will suggested solutions for the problems of the external economy and the energy, transport, and agricultural sectors (Table 4). These problems will most likely dominate debate during the Socialist Unity Party’s Tenth Party Congress, which in 1981 will pass a “directive” to set the economic goals for the “Law Concerning the Five-Year Plan for the Development of the GDR National Economy from 1981 to 1985.”

Table 4
Changes in the Importance of, and in the Efforts Needed for, Implementation of Economic Policy Objectives in the 1980s

Objective	Importance			Efforts		
	Greater	Smaller	The same	Greater	Smaller	The same
1. Standard of living		X	X			
2. Full employment		X			X	
3. Growth		X		X		
4. Higher efficiency	X			X		
5. Modernization of the pattern of production	X			X		X
6. Balance of the State budget			X	X		
7. Balance of international payments	X			X		
8. Income increases			X	X		
9. Currency stability		X				X
10. Quality of working life	X					X
11. Regional equalization		X			X	

Notes

1. Staatliche Zentralverwaltung für Statistik (ed.), *Statistisches Jahrbuch 1979 der Deutschen Demokratischen Republik*, Vol. 24, East Berlin, 1979. Directorate of Statistics (Staatliche Zentralverwaltung f. Statistik report concerning the implementation of the 1979 national economic plan in *Neues Deutschland* (Organ of the Central Committee of the Socialist Unity Party of Germany) 35 (14) (January 17, 1980) 3–4.) Plan fulfillment reports also appear semi-annually; monthly statistics and reports based on practical experience have not been available since publication of the technical journal *Statistische Praxis. Zeitschrift für Rechnungsführung und Statistik* (*Applied Statistics. Journal of Accounting and Statistics*) was discontinued in 1979 with the 34th annual volume.
2. E. Honecker, excerpt from the Politbureau's Report to the 11th Conference of the Central Committee of the Socialist Unity Party of Germany, *Neues Deutschland* 34 (296) (December 14, 1979) 3–7.
3. Cf. A. K., Zwischen Traum und Wirklichkeit, *Neues Deutschland* 34 (224) (September 22/23, 1979) 2. G. Hoppe and W. Kocks, Geborgenheit hier—'konstruktionsfehler' da. Über die Vorzüge und Werte des realen Sozialismus und seine allseitige Überlegenheit über die kapitalistische Ausbeuterordnung, *Horizont* (*Socialist Weekly Journal for International Politics and Economics*) 12 (23) (1979) 8–9. G. Mittag, Sozialistische Planwirtschaft zum Wohle des Volks, zur Stärkung unserer Republik, *Einheit* (*Journal for the Theory and Practice of Scientific Socialism*), published by the Central Committee of the Socialist Unity Party of Germany, 34 (9/10) (1979) 931–939. F. Matho, U. Möller, and G. Schilling, Die Legende von der 'systemimmanenten Ineffizienz' des Sozialismus, *Wirtschaftswissenschaft* 27 (1) (1979) 1–20.
4. *Program of the Socialist Unity Party of Germany* (unanimously adopted at the Ninth Party Congress of the Socialist Unity Party of Germany in East Berlin from May 18–22, 1976), pp. 19 ff., East Berlin, 1976.
5. H. Koziolk, *Reproduktion und Nationaleinkommen. Probleme und Zusammenhänge*, p. 44, East Berlin, 1979.
6. E. Honecker, Gestützt auf das Erreichte nehmen wir höhere Ziele in Angriff, *Neuer Weg* (*Organ of the Central Committee of the Socialist Unity Party of Germany for Issues Concerning Party Life*) 30 (22) (1975) 993–1002.
7. However, the influence of agriculture on economic growth is certainly not as decisive as it is in the Soviet Union. Concerning this point, See A. Notkin, The optimal rate of economic growth in socialism (in Russian), *Voprosy ekonomiki*, No. 5 (1979) 6–16.
8. J. Kuczynski, Pessimistisches Weltkapital. Rückschau 1979—Vorschau 1980, *Horizont*, 13 (3) (1980) 23.
9. G. Mittag, Mit politischem Kampfgeist für eine höhere Effektivität, *Neues Deutschland* 34 (297) (December 15/16, 1979) 7.
10. B. Minc, Der Begriff und das System der wichtigsten Wirtschaftsproportionen und ihre Bedeutung für die Planung der Volkswirtschaft, authors' collective headed by H. Wolf and B. Minc, *Volkswirtschaftliche Proportionen*, p. 19, East Berlin, 1979.
11. F. Matho, U. Möller, and G. Schilling, Die Legende . . . , op. cit., pp. 5 ff. (see note 3).
12. G. Winkler, *Soziale Sicherheit—sozialer Fortschritt*, pp. 55 ff., East Berlin, 1978.
13. Assuming a 100% probability of survival, the following developments can be postulated on the basis of the *GDR Statistical Yearbook*:

	1978	Increases— decreases (millions)	1990
Resident population or working age	9.4	1.0	10.4
Men (aged 18–65)	4.7	0.8	5.5
Women (aged 18–60)	4.7	0.2	4.9

Cf. H.-G. Trost, Zur Entwicklungsproportion zwischen Arbeitsproduktivität und

- Warenproduktion, *Wirtschaftswissenschaft* 27 (7) (1979) 809. H. Koziolok, op. cit., pp. 206 ff. (see note 5).
14. Cf. J. Lindow and K. Wegner, Zu Problemen der Nutzung des Arbeitsvermögens im Norden der DDR, *Sozialistische Arbeitswissenschaft* 23 (3) (1979) 229–35: Probleme der demographischen Entwicklung bei der weiteren Gestaltung der entwickelten sozialistischen Gesellschaft in der Deutschen Demokratischen Republik (Thesen), *Wirtschaftswissenschaft* 27 (7) (1979) 769–89.
 15. Cf. H. Koziolok, op. cit., pp. 181 ff. (see note 5).
 16. E. Sachse, Probleme und Grundrichtungen der Entwicklung und rationellen Nutzung des Arbeitsvermögens, in: H. Scheel (ed.), *Hauptwege zur Steigerung der Arbeitsproduktivität für die weitere Erhöhung des materiellen und kulturellen Lebensniveaus des Volkes* (24th Convention of the Scientific Council for Economic Research at the GDR Academy of Sciences), p. 338, East Berlin, 1979.
 17. People's Chamber of the GDR (ed.), *Das Arbeitsgesetzbuch der DDR*, materials from the 5th Conference of the People's Chamber of the GDR on June 16, 1977, p. 120 (§ 160), East Berlin, 1977.
 18. Calculations based on the number of employed and monthly gross wages in industry. However, in contrast to the industrial gross product, these wages are reported only in current prices (*laufende Preise*) and for units of full-time employed (*Vollbeschäftigtenheiten*).
 19. Cf. H. E. Haase, *Hauptsteuern im sozialistischen Wirtschaftssystem*, pp. 58 ff., West Berlin, 1980.
 20. Cf. Auf dem Weg der Intensivierung zu höherer Effektivität der Arbeit, *Neues Deutschland* 35 (21) (January 25, 1980) 3. Weniger produzieren mehr. Nur Rationalisierung bringt fehlende Arbeitsplätze, *Neues Deutschland* 35 (37) (February 13, 1980) 2.
 21. Cf. M. Kaufmann, *Struktur des Arbeitseinkommens in der DDR*, pp. 13 ff., 120, Jena, 1976. K. Hecht, Die Lohnentwicklung in der Industrie der DDR und ihre Einflußfaktoren, *Wissenschaftliche Zeitschrift der Hochschule für Ökonomie Bruno Leuschner*, 21 (2) (1976) 65–80, East Berlin.
 22. Cf. H. E. Haase, Aktuelle Fragen der Steuerpolitik in der DDR, *Deutschland Archiv* 10 (6) (1977) 633.
 23. Cf. G. Manz, Sozialpolitik und Planung des Lebensniveaus, *Wissenschaftliche Zeitschrift der Hochschule für Ökonomie Bruno Leuschner* 23 (2) (1978) 90, East Berlin.
 24. Cf. authors' collective headed by E. Faude, G. Grote and C. Luft, *Sozialistische Außenwirtschaft*, pp. 269 ff., East Berlin, 1976. Authors' collective headed by G. Pflücke, *Wirtschafts- und Außenwirtschaftsrecht für Ökonomie*, pp. 80 ff., East Berlin, 1977.
 25. Cf. N. M. Mitrofanowa, Tendencies toward Adjustment of Contract Prices in the Trade of the COMECON Nations (in Russian), *Voprosy ekonomiki*, No. 8 (1978) 101–6. H. E. Haase, The COMECON foreign trade price system, *Soviet and Eastern European Foreign Trade* 12 (1976–77) 81–108.
 26. From the radio program "Journalisten fragen" broadcast on Radio DDR I at 7.10 p.m. on February 15, 1980. The quote here is based on the program in *RIAS-Monitor* on February 17, 1980, p. 4.
 27. Mitteilung über die Plankoordinierung DDR-UdSSR 1981–1985, *Neues Deutschland* 35 (31) (February 6, 1980) 3.
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 31. Cf. D. Graf, Vorwort des Herausgebers, in M. N. Lojter, *Naturressourcen, Umwelt und Investitionseffektivität*, pp. 12 f., East Berlin, 1977.

32. Cf. the December 11, 1979, program broadcast at 7.30 p.m. on the East Berlin radio station 'Berliner Rundfunk' as part of its series 'Pulsschlag der Zeit'. Quote here based on the December 11, 1979, *RIAS-Monitor*, p. 3.
33. M. Mehnert and H. Ufer, Volkswirtschaftliche Probleme der Intensivierung der Rohstoff- und Materialnutzung in der DDR, *Wirtschaftswissenschaft* 26 (7) (1978) 806. Cf. H. Ufer, Wachstums- und Strukturprobleme der Energiewirtschaften der RGW-Länder, *Wirtschaftswissenschaft*, 23 (8) (1975) 1135.
34. W. Krolikowski, *Der Kampf um die Verwirklichung der vom VIII. Parteitag beschlossenen Hauptaufgabe und die Bedeutung des wissenschaftlich-technischen Fortschritts*, p. 30, East Berlin, 1974. Cf. GDR Academy of Sciences (ed.), *Volkswirtschaftliche Effektivität und sozialistische Sparsamkeit*, East Berlin, 1976. Authors' collective, *Rohstoff und Energie im gesellschaftlichen Reproduktionsprozeß und ihre Wechselwirkung zur materiell-technischen Basis*, East Berlin, 1978.
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36. Cf. authors' collective headed by Gerhard Schilling, *Zur Einheit von materieller und finanzieller Planung*, pp. 64 ff., East Berlin, 1975. B. Minc, op. cit., p. 15 (see note 10).
37. Cf. J. Garscha, Gedanken zu den Beziehungen zwischen Stabilität und Flexibilität in der sozialistischen Wirtschaft, *Wissenschaftliche Zeitschrift der Hochschule für Ökonomie Bruno Leuschner* 20 (4) (Berlin, 1977) 10-26, East Berlin. The following publications have also been announced: J. Garscha, *Stabilität und Flexibilität in der sozialistischen Wirtschaft*, East Berlin, 1980. H. Luft, *Plan und Warenproduktion*, East Berlin, 1980.
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42. Cf. G. Proft, Erfahrungen aus der Fünfjahrplankoordinierung der RGW-Länder, *Wirtschaftswissenschaft* 27 (1979) 282 ff.
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The Hungarian Economy: Prospects for the 1980s*

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I. Introduction

Hungarian prospects for the 1980s are particularly interesting since they are related to the Hungarian economic reform of the 1960s and 1970s. The Hungarians have produced the only economic reform in which "economic decentralization" has been in operation within the Council for Mutual Economic Assistance (CMEA) for a significant amount of time. Hungary has served as a test case of economic decentralization and has been observed closely by the other CMEA countries, partially due to the increasingly serious economic problems they face. Paul Marer places even more significance than I do on Hungary being a test case as is evident from the following remarks:

"With respect to economic reforms, a strong case can be made . . . that experimenting with partial or administrative reforms does not make too much of a difference one way or another; only carefully prepared and comprehensive reforms of an economic decentralization type would have a significant impact. Within the CMEA, only Hungary has successfully introduced, nurtured, and protected such reforms, while avoiding the political 'excesses' that doomed the reform experiment in Czechoslovakia. Thus, under favorable international political conditions, Hungary's economic reforms may well point toward the possible future evolution of the East European, and, just possibly even the Soviet Union's, economic system."¹

While acknowledging that Professor Marer's evaluation of the potential influence of the Hungarian economic reform is persuasive, given the

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historical disappointment associated with partial reforms in Eastern Europe and given Soviet aversion to worker participation in enterprise management, I believe that the Hungarian reform movement has not as yet been so effective in improving static and dynamic economic efficiency as to encourage other CMEA countries to follow the Hungarian example.² That is one reason why Hungary's second round of decentralizing reforms, which started in 1979 and which will continue to develop throughout the 1980s, has aroused so much interest in Eastern Europe and the Soviet Union—the deep structural changes to be induced by Hungarian-type economic decentralization have not yet been achieved.

The purpose of this paper is to present the author's view concerning the development prospects of Hungary during the 1980s. In Section II of the paper, Hungarian goals for the 1980s are portrayed as perceived solutions³ to a set of problems that has plagued Hungary during the 1970s. Section III includes a discussion of the tools available to decision-makers for reaching the agreed-upon goals. Section IV focuses on the constraints which must be respected during the 1980s and which strongly influence the extent to which each policy tool may be employed. External factors which may influence Hungary's ability to reach her goals appear in Section V, while the paper's conclusions are summarized in Section VI.

II. The Legacy of the 1970s

In Section I, Hungarian goals for the 1980s are introduced as perceived solutions to a set of problems that has plagued Hungary during the 1970s. While this set of problems has developed for a wide variety of reasons, the arguments put forward in this section suggest that decision-making characterized by inadequate flexibility, weak accountability, and inconsistent incentives is the central cause of these problems. In order to understand this association let us first consider indicators of performance which suggest in a preliminary sense that Hungarian progress has been substantial, then we will focus on the less successful aspects of Hungarian policy.

Table 1 reveals the industrial growth performance of a sample of 23 countries. Since industrial growth depends on a wide range of country-specific factors such as the endowment of raw materials, the skill composition of the labor force and the ability to copy existing technology besides depending on policy factors such as investment and technological development decisions, an unadjusted cross-country ranking of performance would be misleading. However a crude analysis of industrial growth performance may be made by assuming: (a) that industrial growth from 1960 to 1970 is a proxy for a country's normal growth pace, and (b) that any changes in the relative international ranking of Hungary according to

1970–78 performance versus 1960–70 performance is an indication of the ability of Hungary to maintain her pace of industrial growth.

Table 1
International Selection of Industrial Output Indices
(in constant prices)

Country	1970÷ 1960 in %	1970 = 100							
		1971	1972	1973	1974	1975	1976	1977	1978
Austria	172	106	114	120	126	118	126	130	133
Bulgaria	293	109	119	130	140	155	164	175	187
Czechoslovakia	179	107	114	122	129	138	146	154	162
Great Britain	130	100	102	110	105	100	102	106	110
France	169	104	112	120	123	114	124	126	128
Greece	244	111	127	147	144	151	166	170	183
Netherlands	200	106	111	119	125	119	126	127	128
Yugoslavia	222	111	119	127	140	147	153	167	181
Poland	223	108	119	133	148	164	179	193	205
Hungary	196	107	112	120	130	136	142	152	159
East Germany	181	106	112	120	129	137	145	152	161
West Germany	169	102	106	113	111	105	114	116	119
Norway	164	104	110	116	120	128	135	138	153
Italy	200	100	104	114	120	108	122	123	126
Portugal	208	108	122	136	139	132	138	155	166
Romania	334	112	125	143	164	184	205	230	251
Switzerland	169	102	104	110	111	97	98	103	103
Sweden	182	101	104	111	117	115	114	111	109
USSR	227	108	115	123	133	143	150	159	167
India	185	104	110	112	114	119	131	138	148
Japan	357	103	110	127	122	110	122	127	134
USA	164	102	111	120	120	109	120	129	136
Argentina	179	109	116	123	130	127	123	128	119

Source: *Statisztikai évkönyv 1978 (1978 Statistical Yearbook)*, p. 518. Központi Statisztikai Hivatal, Budapest.

Table 1 indicates that in those countries in which industrial growth was faster from 1960 to 1970 (except for the Netherlands, Italy and Japan) than that of Hungary, industrial growth was also faster from 1970 to 1978. Conversely, in those countries in which industrial growth was slower from 1960 to 1970 (except for Czechoslovakia and East Germany) than that of Hungary, industrial growth was also slower from 1970 to 1978. Thus, Table 1 suggests that Hungary's industrial growth has been respectable by international standards.

Table 2 lists the growth of agricultural output for the same 23 countries that appear in Table 1. Since fluctuations of agricultural output are related to fluctuations in weather conditions, we employ a ratio (in percentage terms) of the average annual agricultural performance for 1971–75 to the average

annual figure for 1961–65 in order to obtain a norm for potential agricultural growth. Let us call this ratio α . Hungary has a value of $\alpha = 137$. There are six countries in Table 2 besides Hungary with $\alpha \geq 137$, yet Hungary's average 1976–78 agricultural performance relative to her 1971–75 annual average is better than that of two of these six countries. Among countries with $\alpha < 137$, only Argentina experienced a greater average annual agricultural figure for 1976–78 relative to her 1971–75 annual average than that of Hungary. Hence, Table 2 provides a tentative indication that Hungary's agricultural growth has been respectable by international standards. In fact, a comparison of Hungarian national income growth with the national income growth of this same set of countries⁴ again suggests that Hungary has been able to maintain her relative position in the world economy during the 1970s.

Table 2
International Selection of Agricultural Indices

Country	1971–75	1976	1977	1978
	average \div 1961–65 average in %			
	in terms of the annual average for 1971–75			
Austria	115	106	104	106
Bulgaria	142	111	106	109
Czechoslovakia	137	101	110	112
Great Britain	122	98	104	110
France	123	100	100	106
Greece	142	114	112	119
Netherlands	147	111	115	116
Yugoslavia	137	114	119	114
Poland	135	103	101	105
Hungary	137	105	116	118
East Germany	134	100	107	109
West Germany	119	98	101	106
Norway	109	99	110	110
Italy	121	103	103	108
Portugal	101	99	90	92
Romania	155	124	123	126
Switzerland	115	109	108	112
Sweden	110	107	107	110
USSR	137	105	108	112
India	125	106	114	117
Japan	124	100	107	106
USA	121	109	113	113
Argentina	110	118	118	125

Source: *Statisztikai évkönyv 1978*, p. 528 (hereafter SE will be the abbreviation for *Statisztikai évkönyv*).

Keeping in mind that Hungary enjoyed full employment and success in maintaining control over income differentials among social groups, Table 3

contains evidence that Hungary has been able to maintain consumer price stability while also offering the population increases in per capita real personal income, real wages, consumption, and expenditures on social services. Furthermore, the positive aspects of performance with respect to output growth, price stability, and increases in consumer welfare as outlined in Tables 1–3 have been largely in conformity with plan targets.⁵

Table 3
Measures of Consumer Welfare

YEAR	A	B	C	D	E
1960	—	—	—	—	0.113
1961	1.0	0.5	0.2	0.7	
1962	0.5	3.4	1.5	3.3	
1963	-0.7	5.6	4.5	4.4	
1964	0.5	5.8	2.6	5.5	
1965	1.1	0.4	0.0	1.1	
1966	1.8	5.4	2.2	4.5	
1967	0.6	6.7	3.7	6.0	
1968	0.0	6.5	2.3	4.1	
1969	1.3	5.9	4.5	4.9	
1970	1.3	7.4	4.7	7.0	0.180
1971	2.2	4.2	2.3	4.4	
1972	2.8	3.0	2.2	3.4	
1973	3.4	4.5	2.8	4.1	
1974	1.7	6.4	5.6	5.1	
1975	3.8	4.2	3.8	4.5	0.233
1976	5.0	0.3	0.1	1.1	0.244
1977	3.9	5.0	3.8	4.2	0.248
1978	4.6	2.8	3.1	2.7	0.248

A = percentage increase in consumer price index.

B = percentage increase in real personal income per capita.

C = percentage increase in real wages per employee.

D = percentage increase in consumption per capita.

E = annual social welfare benefits per inhabitant divided by the average annual wage in socialist industry.

Sources: *SE 1974*, pp. 116, pp. 365–66; *SE 1976*, p. 336; *SE 1977*, p. 369; *SE 1978*, pp. 19, 135, 351, 387.

The evidence of performance in Tables 1–3 offers no indication as to why Hungary would alter her pattern of development during the 1980s. The population was responding favorably to the increases in the standard of living and to the atmosphere of full employment and consumer price stability. The decision-making hierarchy was satisfied with the growth of industrial output, agricultural output, and national income, and was particularly pleased with the stability of the institutional structure. However, Hungary's inability to

achieve a balanced external equilibrium, especially with respect to the balance of trade in terms of convertible currencies, created the pressure for the introduction of a second major round of economic reforms.

Table 4
Hungarian Balance of Trade
(including insurance and transportation costs), 1971-78

Year	A	B	C	D	E
1971	-15.7	-27.7	-21.4	10.5	-243.1
1972	8.4	-4.9	2.3	-0.8	-53.0
1973	14.2	6.3	10.2	4.0	114.0
1974	4.0	-27.8	-13.2	8.9	-581.6
1975	-14.7	-24.3	-19.4	13.2	-531.4
1976	-8.8	-14.1	-11.5	-0.1	-346.8
1977	-4.0	-19.9	-11.9	13.0	-567.2
1978	-14.1	-35.7	-24.9	5.0	-1110.5

- A = rouble trade balance as a percentage of rouble export earnings.
 B = non-rouble trade balance as a percentage of non-rouble export earnings.
 C = overall trade balance as a percentage of overall exports.
 D = percentage change in investment in terms of the previous year's investment.
 E = non-rouble trade balance calculated in millions of US dollars.

Sources: *Külkereskedelmi statisztikai évkönyv 1978 (1978 Foreign Trade Statistical Yearbook, hereafter referred to as KSE)*, pp. 8, 13, Központi Statisztikai Hivatal, Budapest, SE 1978, p. 107.

Column E of Table 4 outlines the stream of non-rouble (convertible currency) trade deficits, the accumulation of which was primarily responsible for the \$5.5 billion estimate of Hungary's net convertible currency debt as of the end of 1978.⁶ Columns A, B, and C of Table 4 reveal that trade deficits were very high in terms of export earnings, especially for convertible currency trade (col. B) which underwent deficits ranging from -14.1% to -35.7% of export earnings between 1974 and 1978.

Alan Brown and Marton Tardos, in their paper entitled "The impact of global stagflation on the Hungarian economy,"⁷ provide an illuminating study of the effects that changes in relative world market prices have had on the Hungarian economy. In the first part of their paper, they note that the New Economic Mechanism (NEM) was designed for a world of stable world market prices. Table 5 suggests that this assumption by Hungarians was reasonable since the rouble, non-rouble, and total terms of trade for the 1961-70 period were relatively stable. However, world market prices exploded in 1973-74 and CMEA prices followed in 1975. From Table 5 it is

evident that Hungary has suffered serious deterioration in non-rouble terms of trade for 1973–75 and in rouble terms of trade for 1975–78. In addition, in 1974 the Common Market imposed an import prohibition on slaughtered cattle from outside the Common Market. So Hungary was hit with two totally unexpected exogenous events which undermined the basis of NEM—changing relative world market and CMEA prices and a Common market trade barrier.

Table 5
Average Annual Percent Changes in Hungarian Foreign Trade Prices and Terms of Trade

Period	Rouble trade			Non-rouble trade			Total trade		
	E	M	TT	E	M	TT	E	M	TT
1961–65 ^(a)	0.3	-0.1	0.4	0.6	-1.3	0.4	0.4	-0.4	0.8
1966–70 ^(a)	-0.8	-1.0	0.2	1.8	0.7	-0.1	0.1	1.2	0.5
1971–75 ^(b)	3.3	6.2	-2.4	6.2	12.2	-4.7	4.1	8.1	-3.7
1971	-0.4	1.8	-2.2	1.4	2.2	-0.8	0.3	1.7	-1.4
1972	0.6	2.2	-1.6	3.6	2.2	1.4	1.6	2.4	-0.8
1973	0.5	0.2	0.3	13.6	16.5	-2.5	5.0	6.3	-1.2
1974	1.3	0.9	0.4	18.9	39.5	-14.8	7.7	16.4	-7.5
1975	14.7	25.7	-8.8	-6.6	0.4	-7.0	6.1	14.2	-7.1
1976 ^(c)	-3.9	-1.8	-2.1	-5.5	-11.3	6.5	-4.6	-6.7	2.2
1977	3.2	6.4	-3.0	3.6	7.7	-3.8	3.4	7.0	-3.4
1978	-0.8	1.5	-2.3	-0.4	-1.2	0.8	-0.6	0.0	-0.6

E = percent change in the export price index.

M = percent change in the import price index.

TT = percent change in the terms of trade (export price index ÷ import price index).

^a average of yearly percent changes where socialist trade is used as a proxy for rouble trade and non socialist trade is used as a proxy for dollar trade.

^b average of yearly percent changes.

^c On January 1, 1976, the forint was revalued upward by 12.5% with respect to the transferable rouble and by 8% with respect to convertible currencies. Thus the 1976 price indices show larger decreases than otherwise.

Source: *KSE 1973*, p. 187; *KSE 1978*, p. 444.

Of course, we are not interested in evaluating NEM in this paper. However, given that the 1980s are likely to be characterized by further serious unexpected exogenous shocks, it is central to the understanding of Hungarian economic prospects for the 1980s to address several questions. How did Hungarian decision-makers respond to the crises of the 1970s? Will the proposed second round of economic reforms change those policies that were detrimental during the 1970s?

The paper by Brown and Tardos provides a convenient framework for answering these questions by discussing the weakening of the Hungarian

competitive position in world markets, Hungarian responses to convertible currency trade deficits, and economic regulation during 1974–78. We will use their observations to show that decision-making during 1974–78 was characterised by inadequate flexibility, weak accountability, and inconsistent incentives.

Brown and Tardos list the following reasons why Hungary's competitive position on world markets eroded: (1) increased competition from export-oriented developing countries who have lower wage levels than Hungary; (2) the inability of Hungarian producers, in contrast to other producers, to adapt themselves to rapidly changing external requirements; and (3) the relatively feeble incentives designed to encourage Hungarian enterprises to increase per unit export receipts and save import costs. If Hungarian performance in foreign trade is to improve, policy changes are in order.

Suppose Brown and Tardos are wrong in the sense that Hungary's competitive position could be strengthened without major changes in the methods of making decisions. For instance, could extensive and intensive development of labor resources during the 1980s contribute so significantly to the economy that decision-making modifications are unnecessary? The answer is no because Hungary will have a declining labor pool in the 1980s. At the beginning of 1979 the number of people whose age is between 15 and 59 inclusive was 6,597,076, whereas the 1983 and 1987 estimates are 6,526,912 and 6,514,220 respectively.⁸ Hungary already has a high female participation rate in the labor force, so increased activity by the 60 and older age cohort seems to be the only avenue of expansion.

If Hungarian labor productivity temporarily stagnated during the 1970s, then maybe a rebound in such productivity could be anticipated in the 1980s. However, inspection of the first four lines of Table 6 shows that increases in labor productivity were higher during 1971–78 than 1961–70 for socialist industry as a whole as well as for metallurgy, machinery and equipment, the building materials industry, the chemical industry, light industry, and other manufacturing industry. No rebound can be anticipated⁹ because no shortfall in labor productivity occurred.

Perhaps decision-making modifications would not be needed if Hungary's economic problems were due to the slow growth of investment during the 1970s. Column D of Table 4 indicates that this was not the case. Uneven investment growth occurred between 1971 and 1978, but it was not slow growth.

Returning to the points made by Brown and Tardos, the unanticipated competition from export-oriented developing countries may indicate that Hungary choose to expand into the "wrong" markets or that Hungarian quality of output is only on par with the quality of similar products from developing countries. If Hungary expanded into the wrong markets, then

investment decision-making may be at fault.¹⁰ If so, then investment decision-making procedures should be revamped for the 1980s. If product quality was the problem, then an incentive system should be designed to increase the quality of Hungarian export goods.

Table 6
Percent Changes in Industrial Labor Productivity, 1961-78

Annual Average for	A	B	C	D	E	F	G	H	I	J
1961-65	3.9	7.1	3.7	5.6	5.1	7.5	3.6	5.1	5.0	5.0
1966-70	6.0	7.9	4.3	4.3	3.5	6.0	2.1	4.8	1.6	3.7
1971-75	4.1	6.3	4.7	7.6	4.9	9.0	6.1	6.2	2.9	6.2
1976-78	4.0	8.6	4.0	5.9	6.0	10.2	4.5	8.4	2.7	5.7
1971	4.5	9.1	4.8	7.9	1.8	11.3	5.3	14.9	5.6	7.0
1972	0.8	7.4	2.4	5.7	2.3	9.7	8.2	6.9	3.5	6.0
1973	8.6	5.9	7.4	4.8	5.8	8.0	8.4	2.5	1.1	5.6
1974	1.1	5.3	9.3	10.9	7.1	9.0	5.5	8.1	3.9	7.5
1975	5.6	3.7	0.1	8.5	7.4	7.2	3.4	-0.8	0.7	4.9
1976	1.4	7.2	4.6	5.9	5.9	11.0	4.5	8.0	1.4	5.4
1977	5.4	7.9	4.2	6.3	6.0	8.6	5.4	7.8	8.4	6.8
1978	5.2	10.5	3.2	5.7	6.1	10.8	4.0	9.3	-1.3	5.0

- A = mining.
- B = electricity.
- C = metallurgy.
- D = machinery and equipment.
- E = building materials industry.
- F = chemical industry.
- G = light industry.
- H = other manufacturing industry.
- I = food industry.
- J = all socialist industry.

Source: SE 1978, pp. 164-5.

If Hungarian producers were not able to adapt rapidly enough to changing world market demand requirements, the reasons are to be sought in the entire institutional structure. Why did the entire Hungarian institutional structure “permit” this inflexibility to exist via the absence of bankruptcy and the presence of producer subsidies and consumer subsidies? Why weren’t Hungarian producers held accountable for their inflexibility? What incentives existed to encourage these producers to be flexible? This leads us to the issue of whether substantial institutional change is a necessary condition for increased Hungarian competitiveness on world markets.

The assertion that enterprises were given only weak incentives to respond to the 1971-75 non-rouble trade deficits is particularly puzzling since the plan targets for the 1976-80 Five-Year Plan implied that exports transacted in convertible currencies were supposed to grow by at least 20-25% faster than imports transacted in convertible currencies. Of course, quite the reverse has happened (see Table 4). Why were the higher levels of the decision-making hierarchy unable to provide adequate incentives to enterprise

managers? Do the higher levels of decision-making understand the behavior of enterprises? (Section IV contains partial answers to these questions.) Clearly if the answers to these questions can be incorporated into the second round of reforms, then economic prospects for the 1980s will be brighter than otherwise.

The next part of the Brown and Trados paper deals with Hungarian responses to convertible currency deficits. One response which has important implications for the 1980s is the agreement to settle part of trade among socialist countries¹¹ in convertible currencies rather than in roubles. Brown and Trados emphasize the importance of this aspect of trade by citing 1977 experience. However, they do not comment upon whether trade in convertible currencies is increasing or decreasing in importance. In Table 7, Column B shows a generally positive and increasing balance of trade with socialist countries for trade transacted in convertible currencies during 1970–78. In fact, column Δ provides a glimpse into the impact of the figures in column B by enumerating the percentage change in the overall convertible currency deficit D or surplus S that would have existed if the balance of trade with socialist countries for trade transacted in convertible currencies would have been zero. For instance, in 1973 the overall convertible currency trade surplus would have been reduced by 87.7% if the balance of trade with socialist countries for trade transacted in convertible currencies would have been zero. In 1974–78 respectively, the overall convertible currency deficit would have been 11.7%, 34.7%, 50.0%, 43.5%, and 14.6% higher under similar circumstances. Given the favorable impact of this type of trade for Hungary, it seems probable that Hungary will try to increase her trade surplus in convertible currency transactions with socialist countries during the 1980s. However, Hungary's socialist trading partners may resist such an attempt since they also are under pressure to repay substantial convertible currency debts which accumulated in the 1970s due to their own convertible currency trade deficits.

Also included in Table 7 is the increasing overall trend of buying imports for convertible currency. For imports, the share transacted in convertible currencies rose from 38% in 1970 to 54.7% in 1978, and for exports the figures are 39% in 1970 and 49.8% in 1978. This trend has developed because of both increased trade with nonsocialist countries and increased use of convertible currencies in trade among socialist countries. In any case, Hungarian trade with nonsocialist countries has shown an increasing trend during 1970–78, despite the occurrence of the two unexpected exogenous events mentioned earlier. I believe that this commitment to trade with nonsocialist countries will become even stronger during the 1980s for reasons to be discussed later.

Brown and Tardos argue convincingly that Hungarians decreased neither

the rate of growth of consumption nor of investment as a response to the impact of external disturbances. Hungarian consumers were not forced to lower their standard of living despite the change in relative world market prices. Moreover, investment expenditure was not controlled¹² despite the presence of trade deficits. Reforms introduced in 1979 and proposals concerning the expected flow of reforms in the 1980s suggest that Hungary has begun and will continue to tie external trade equilibrium much more closely to internal policies relating to both consumption and investment.

Table 7
Hungarian Convertible Currency Trade with Socialist Countries

Year	Imports			Exports			B	Δ
	R	CC	SCC	R	CC	SCC		
1965	65	35	—	66	34	—	—	—
1970	62	38	12.6 ^(a)	61	39	14.2 ^(b)	-464.2	-8.0 (D)
1971	62	38	13.4 ^(a)	64	36	14.4 ^(b)	-503.4	-3.5 (D)
1972	63	37	11.7 ^(a)	65	35	12.6 ^(b)	1,502.4	49.8 (D)
1973	59	41	13.0 ^(a)	61	39	16.7 ^(b)	4,556.2	-87.7 (S)
1974	51	49	17.5 ^(a)	57	43	20.5 ^(b)	3,289.7	11.7 (D)
1975	48.5	51.5	11.7	51.1	48.9	18.7	8,193.0	34.7 (D)
1976	47.3	52.7	12.4	49.4	50.6	18.3	7,326.5	50.0 (D)
1977	46.2	53.8	12.4	50.4	49.6	18.8	10,276.3	43.5 (D)
1978	45.3	54.7	12.6	50.2	49.8	17.6	6,228.5	14.6 (D)

R = percent transacted in roubles.

CC = percent transacted in convertible currencies.

SCC = percent with socialist countries transacted in convertible currencies.

B = balance of trade with socialist countries for trade transacted in convertible currencies, in millions of forints.

Δ = percentage change in the overall convertible currency trade deficit (D) or surplus (S) that would have existed if the balance of trade with socialist countries for trade transacted in convertible currencies would have been zero.

^a This figure is an estimate calculated as $[1 - (\text{adjusted value of imports transacted in roubles} \div \text{value of imports from socialist countries})]$ where the adjusted value of imports transacted in roubles = $(0.982) \times (\text{value of imports transacted in roubles})$. The adjustment factor 0.982 is the average for 1975-78 of imports from socialist countries transacted in roubles over all imports transacted in roubles.

^b This figure is an estimate calculated as $[1 - (\text{value of exports transacted in roubles} \div \text{value of exports to socialist countries})]$. No adjustment factor is included since the value of exports to nonsocialist countries transacted in roubles is negligible for 1975-78.

Sources: KSE 1973, p. 10; KSE 1974, p. 10; KSE 1976, pp. 8, 10, 12, 14; KSE 1978, pp. 10-12.

Of course, we may wonder why Hungarians did not control imports more effectively given that they chose not to influence imports indirectly through consumption and investment policy. The answer, in part, seems to be that such direct control would have contradicted the spirit of NEM. So we must

return to the question of why control over consumption and investment was not enforced more carefully in the 1970s, but will be in the 1980s.

The practice of covering trade deficits by increasing convertible currency external debt is one option which Hungary will not be able to utilize as much in the 1980s as in the 1970s simply because of the large external debt which she has already accumulated. Clearly this is one reason that the other policy options will receive greater emphasis in the 1980s.

By focusing on the industrial policy options that the Hungarians employed or failed to employ, I may have inadequately emphasized the overall policy of insulating Hungarian consumers and producers from the effects of deteriorating terms of trade. Hungarian producers were protected in a particularly conscious manner by providing subsidies to firms hit with rising import costs and by levying excess profit taxes on those firms reaping high profits from exports. An overview suggests that Hungarian decision-makers were willing to protect Hungarian consumers and Hungarian firms (and therefore Hungarian workers) from the sharp adjustment costs that would have followed from internalizing the new set of world market prices. This protection translated into the absence of price incentives for consumers to change their consumption habits and for producers to alter their production decisions. Why were decision-makers so concerned that the consumption standards and jobs of individuals would remain intact? During the 1970s, promises of job security and standard of living increases were regarded as important preconditions for maintaining the right to govern. Convincing the population that these qualities are no longer attainable due to uncontrollable, external events, has been a lengthy process. Under such circumstances, consumer and producer-inflexibility is understandable.

Clearly these remarks focus on the style of economic regulation during 1974–78. Rather than discussing this topic in depth, I will limit my comments to one important aspect of regulation—the price system. During the 1970s the tax and subsidy system continued to distort the degree to which prices reflect scarcity values. For instance in 1977, subsidies (generally paid to the wholesaler) for meat, milk, and cereals were 16%, 66%, and 26% of the respective retail price, while subsidies for foodstuffs as a whole averaged 26%. For mass transit, home heating, and laundry the subsidy percentages were 117%, 168%, and 140%. Even more amazing is that the gasoline subsidy was 38% of its retail price. On the other side, taxes for luxury goods, automobiles, and clothing measured 38%, 31%, and 5% of the respective retail price.¹³ The price ratios based on Hungarian domestic producer prices and on world market prices also diverged significantly.

The decision-making implications of such a price system go a long way to explain the problems of the 1970s. Without a well-working price system, the benefits and costs of new policy measures were difficult to calculate. This

contributed to the general atmosphere of inflexibility because some universal way of measuring benefits and costs is a necessary, though not sufficient, condition for making intelligent decisions quickly. Since prices did not reflect scarcities very closely, profits were not accepted as a measure of social benefit. Thus firms tended not to be held accurate for actions which did not increase profits. Finally, since producer prices, consumer prices, and scarcity prices diverged, price incentives were inconsistent among the different levels of the decision-making hierarchy.

III. Solving these Problems in the 1980s

Now that the problems of the 1970s have been outlined, this section presents the set of policy tools chosen by decision-makers to solve these problems. Earlier in this paper I have referred to this set of tools as Hungary's second round of economic reform.

The short-term goal of Hungary is to restore balance to the economic environment, especially with respect to the balance of trade in terms of convertible currencies. More concretely, a rapid transformation of productive and export organizations is expected to lead to the growth of production and net material product while increasing productivity and quality. The production of goods which are competitive on world markets is to be increased and unprofitable production is to be curtailed. Finally, the disposable income of the population and the production of unprofitable exports are to be reduced.

To achieve these goals, there is a need to modify the system of economic regulation. Some of the most basic modifications are the changes in the price system which are designed to encourage static efficiency and to produce a restructuring of consumption patterns. With respect to consumer prices the goals are no subsidies for food, a uniform sales tax to be placed on many consumer goods, and a higher tax rate for luxuries. One major step of the consumer price reform was taken on July 21, 1979, when prices for foodstuffs increased 20%, while prices for fuels and energy increased by 34%.¹⁴ In addition, a larger percentage of consumer prices (perhaps as much as 60% versus the current 45%) will fall within the free price category, although necessities will still be subject to fixed prices. Finally, an effort will be made (via the uniform sales tax on non-luxury consumer goods) to set consumer price ratios equal to producer price ratios, with before-tax consumer prices being calculated according to domestic agricultural prices and foreign trade prices.

A large proportion of Hungarian enterprises will be facing producer (wholesale) prices which are based on world market prices. Complete reliance

on world market prices is not anticipated because CMEA trade is theoretically based on international cooperation rather than on prices. A system of transfer payments will have to be employed to deal with the difference between CMEA prices and world market prices. Despite this complication, on January 1, 1980, producer prices based on world market prices and the prevailing uniform commercial exchange rate were implemented for about 60% of all Hungarian enterprises. The enterprises subject to these prices are engaged primarily in producing exports or use a high proportion of imports. Prices for nontraded items such as transportation and communications services will be set according to domestic production costs. Agricultural producer prices will not be tied to world market prices in order to allow these producer prices to be fixed at levels which will encourage the growth of agricultural exports.

Other measures which will influence producer prices include intentions to reduce enterprise-specific government taxes and subsidies, to eliminate the tax on fixed assets, and to reduce the wage tax from 35% to 17%.

The reform of the price system neglects to address the issue of prices for capital and labor inputs. For instance, in Section I we have seen that central authorities have had a difficult time controlling investment expenditures (Table 4, column D). This has been due to the excess enterprise demand for bank credit and central government investment grants at interest rates which have been fixed. Neither bidding for investment credits nor a system of flexible interest rates has been proposed. Of course, such proposals would have to be coupled with incentives as the real possibility of bankruptcy or the real threat of dismissing enterprise managers for poor performance. These incentives would encourage managers to submit bids for investment funds for which they would be accountable.

With respect to wage rates, central authorities will specify the bands within which skill specific wage rates must remain. This may not be as serious as it appears because enterprise managers may be able to circumvent such regulations easily.

Other basic modifications of the system of regulation include the creation of an incentive system which will permit decentralization of decision-making. Clearly a price system which reflects scarcity values is an important step in this direction. In addition, Hungarian officials claim to be willing to allow enterprise bankruptcy to occur, to permit managers to reduce an enterprise's labor force more easily, and to tolerate a greater degree of differentiation in the officially measurable distribution of income. To add some credence to these claims, Hungary's labor laws have been altered. Employers may now dismiss workers more easily (for either productive or market reasons), assign one worker to several part-time jobs, substitute part-time jobs for full-time jobs, and impose fines on workers who are careless or tardy. Moreover,

differences in income opportunities are to depend more directly on economic achievements.

These improvements in the incentive structure ignore those incentives which would ensure cooperation among competing groups of decision-makers. For example, it is not apparent that branch authorities will cooperate with other authorities in enforcing the bankruptcy threat or in taking a hard line on labor discipline.

Is not one of the major goals of a branch ministry either the maintenance or increase of its own power? Bankruptcy, dismissal of industrial managers, and enforcing labor discipline may conflict with a branch ministry's goal of maintaining power and prestige. Furthermore, these reforms fall heavily on industrial workers. Social conflict may develop because the new regulations concerning labor discipline tend to neglect industrial managers and that part of the labor force which staffs the bureaucracy.

In Section II we discussed the weak accountability which characterized Hungarian decision-making during the 1970s. One reason for this was the price-subsidy-tax system which prevailed. Another reason was the oligopolistic nature of the domestic production structure. If profit differences reflect differential oligopolistic rents rather than differential inputs of effort, then the idea of accountability based on profit loses much of its attractiveness. For this reason, and in order to reap the inventiveness that is apt to develop due to competitive pressure, Hungarian firms need to encounter a greater amount of competition. Hungary's first round of reforms, during 1968-78, were based on the notion that by connecting salaries to profit, enterprise performance would improve. For a number of reasons this approach was not successful. So competition from abroad and the use of relative world market prices have been chosen as the motivating forces during Hungary's second round of reforms. The current reform of the foreign trade sector seeks to impose greater competition on domestic enterprises by reducing enterprise-specific import and export subsidies, lowering tariff barriers, encouraging firms to engage in foreign trade directly rather than through foreign trade organizations, establishing a uniform exchange rate (rather than maintaining separate commercial and noncommercial rates), and transforming the forint into a convertible currency.

Initially, the crucial element is the elimination of enterprise-specific import and export subsidies. Under these conditions, and assuming that Hungarian producers are given incentives to minimize cost, domestic firms would be forced to compete with foreign firms to provide the least-cost alternative for the domestic market. On the export side, a uniform subsidy rate is embodied in the proposal to rebate the sales tax normally applied to domestic consumer goods for goods which are exported. Thus producers conceivably could receive higher prices for producing goods for export than for the domestic market.

Several problems remain unanswered by the proposed reform of the foreign trade sector. Will domestic price ratios be instantaneously adjusted to equal world market prices? If not, then domestic producers may find it more attractive, at times, to export their products rather than to satisfy domestic demand. In addition, CMEA trade obligations must be met and so central authorities will have to draw up special enterprise-specific procedures to guarantee that this occurs. Such enterprise-specific procedures may constitute serious obstacles to the creation of a general atmosphere of competition. Finally, Hungary's close political and economic ties with CMEA countries are likely to block the transformation of the forint into a convertible currency.

A more straightforward foreign trade adjustment was the 12.5% revaluation upward of the forint relative to the rouble on March 1, 1980. This made trade transacted in convertible currency more attractive to domestic producers.

Let us proceed to the issue of importing technology. Decision-makers realize that the production structure should be modernized with machinery imports from Western countries. For this reason, and also because Hungary has chosen to adopt world market prices as her shadow prices, I believe that the commitment to trade with nonsocialist countries will become even stronger in the 1980s.

Returning to the issue of technology transfer and the modernization of the production structure, I fail to see how this policy will be an overwhelming success because investment decision-making is still firmly in the hands of central authorities. Central authorities simply do not have the technological expertise to make these decisions, nor is it apparent that branch or enterprise authorities will provide unbiased information concerning the actual anticipated benefits of obtaining imported machinery. Here is one area where decentralization could have large payoffs.

IV. The Constraints which must be Honored during the 1980s

The possible scope of the second round of Hungarian reforms is limited by a number of factors which constrain decision-makers from breaking away too strongly from past practices. Important among these constraints is a continued commitment to CMEA integration. CMEA obligations are between governments not enterprises. Hence, because CMEA projects require substantial Hungarian capital and labor inputs and because relative CMEA prices diverge from relative world market prices, the Hungarian Government will have to bargain in an *ad hoc* manner with individual Hungarian enterprises to guarantee that CMEA obligations are met. This

will work against the establishment of a general atmosphere of enterprise profit maximization.

Just as important as the CMEA constraint is the decision to avoid major institutional changes. Can more effective economic decentralization be developed while branch ministries exist? A generally negative answer to that question means that the Hungarian attitude concerning the second round of economic reforms is overly optimistic. In other words, changes in the production structure and the pattern of foreign trade will not be as great as anticipated during the 1980s.

The existence of branch ministries is an obstacle to more effective decentralization for two reasons. Firstly, the performance of each branch ministry is measured according to its ability to increase branch output; fulfill branch domestic final demand; satisfy branch CMEA obligations; and increase branch convertible currency earnings. The success of each branch ministry is not a function of the sum of the profits of that branch's enterprises. Under these conditions, an incentive system designed to encourage enterprises to maximize profits will probably be undermined by branch authorities who appoint the top managers of their enterprises. This is another barrier to a general atmosphere of enterprise profit maximization.

Secondly, the supervisory role of branch ministries is defined, to a large extent, along the product lines that belong to that branch. However, if enterprises would accumulate profit, then the existence of branch ministries would force much of that profit to be invested within each branch. That may not be optimal because future profit opportunities may not reflect past profit patterns.

Clearly the decision to eliminate branch ministries would not be undertaken without redefining profit. For instance, price incentives would have to replace the bureaucratic behavior of branch ministries to guarantee that CMEA commitments would be fulfilled. However, by eliminating branch ministries, an atmosphere of enterprise profit maximization would be more probable because prices could be set to reflect social costs and enterprises could be permitted to invest retained earnings without branch restrictions.

Finally, there is the response of the population to consider. Will the population be satisfied with a stagnant or possibly declining standard of living? Will industrial workers rebel at seeing that the increased labor discipline is directed primarily at them and not at the bureaucrats? Will the increases in income differentials produce group conflicts? These are issues which Hungarian decision-makers cannot afford to ignore.

V. External Factors which may Influence Hungary's Ability to Reach her Goals

Hungary has decided to build her policies for the 1980s around the competitive, uncertain environment of world trade. However, three external factors may severely hamper this strategy. Firstly, US-USSR relations have deteriorated due to Afghanistan and other issues. This has led to a cooling of *détente*. Secondly, uncertainty concerning future world market prices for energy and raw materials is greater than that for other commodities. This will encourage Hungary to contribute more toward CMEA energy and raw material projects which offer greater stability in terms of price and supply. Thirdly, the 1980s will be a decade of changing relative world market prices, probably leading to a further deterioration in Hungarian terms of trade. Decision-makers within the existing institutional structure will encounter problems in agreeing on how to transmit the effects of deteriorating terms of trade to the domestic economy, which will be sharpened by the intended, prolonged net export surpluses.

VI. Conclusions

On the negative side, I would predict slower economic growth in the 1980s than occurred in the 1970s, due to manpower problems and increasing energy and raw material prices. Changes in the relatively inflexible system of making investment decisions are not likely to be forthcoming soon, so investment decision-making will not counteract manpower and energy problems. Enterprises will still be subject to a fair amount of enterprise-specific government regulation; the goal of creating an atmosphere in which enterprises strive to maximize profits will not be reached completely (although I do predict improvement in this area). Finally, the population will probably show its dissatisfaction with policies several times during the forthcoming decade.

On the positive side, the complicated system of subsidies and taxes will become more manageable. New and more convenient means of macro regulation are being developed, such as the uniform sales tax on consumer goods. In general, the price system will more closely mirror scarcity values and thus become a more valuable tool for decision-making. Lastly, Hungarian managers will probably adopt a more vigorous style of management due to the changes in the labor laws, the increased importance put on profits, and the anticipated competition from foreign enterprises.

Notes

(Abbreviation: *SE* = *Statisztikai Évkönyv Statistical Yearbook*), Központi Statisztikai Hivatal, Budapest).

1. P. Marer, Eastern European economies: achievements, problems, prospects, to appear in T. Rakowska-Harmstone and A. Gyorgy (ed.), *The Governments and Politics of Eastern Europe: Problems and Prospects*, p. 64 of the mimeo version, Indiana University Press, Bloomington, 1978.
2. J. C. Kramer, *Hungary Preparing a New Effort to Reform the Economy*, Bureau of Intelligence and Research, Department of State, Report No. 1233, August 24, 1979, p. 23.
3. Perceived solutions refer to the solutions agreed upon within the top level of the decision-making hierarchy.
4. *SE 1978*, p. 517.
5. See, for example, O. Gadó, *The Economic Mechanism in Hungary—How it Works in 1976*, pp. 9–11 Akadémiai Kiadó, Budapest, 1976.
6. D. W. Green, Growth slowdown ahead for Hungary, *International Finance*, p. 8, The Chase Manhattan Bank Economics Group, May 14, 1979, who utilizes statistics from the Bank for International Settlements.
7. A. Brown and M. Tardos, The impact of stagflation on the Hungarian economy, a paper presented at the Conference on the Impact of International Economic Disturbances on the Soviet Union and Eastern Europe, Washington DC, September 24–26, 1978.
8. The 1979 figure comes from *SE 1978*, p. 55, while the estimates for 1983 and 1987 are based on the implicit survival rates derived by comparing the 1979 population figures with the 1975 population figures (*SE 1978*, pp. 54–55; *SE 1974*, pp. 28–29). I calculated survival rates for each cohort (persons born during a single year) for the period 1975–79, then calculated average survival rates for 5-year cohorts (persons born during a 5-year period).
9. This statement is conditional on no change in decision-making practices. Otherwise, I believe there is room for substantial improvement in labor productivity.
10. Decisions which are “bad” *ex post* do not necessarily imply bad *ex ante* decision-making procedures.
11. Here the term socialist countries refers to Bulgaria, Czechoslovakia, Yugoslavia, Poland, East Germany, Romania, the USSR, the Republic of China, and Cuba.
12. If Hungarian enterprises would not have been separated from the change in relative world market prices, I believe that the overall level of profits would have been lower than actually occurred. This would have implied a lower level of investment.
13. Béla Csikos-Nagy, A contribution to the theory of the price mechanism, *Pénzügye Szemle*, No. 8–9 (August–September, 1978) 575, as reported in Kramer, *op. cit.*, p. 9.
14. My comments on the second round of economic reforms rely partly on Kramer, *op. cit.*, pp. 8–21.

Prospects for the Polish Economy in the 1980s

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In the mid-seventies Polish planners formulated optimistic long-term plans, expecting annual growth rates in industry, agriculture, and per capita GNP of 7.5%, 2.7%, and 4.5% respectively from 1975 to 1990¹. Performance and expectations have since come down.

The Guidelines of the Central Committee adopted at the 16th Plenary Session on 19th October, 1979² and approved by the 8th Party Congress on February 1980 outline the major qualitative and quantitative aspects of the 1981–85 policy (Table 1).

Table 1
Summary of Economic Development 1971-85

	1971-75	1976-80 estimate	1981-85 estimate
	Growth in five-year period (%)		
National income	59	18	14-18 ^(c)
Industrial production (gross)	64	30	20-24 ^(c)
Agriculture net final production	9	14	12-13 ^(c)
Building industry ^(a)	87	5	5-8 ^(d)
Transport and communications ^(a)	81	20	17-21 ^(d)
Trade ^a	70	15	9-11 ^(d)
Total consumption ^(b)	52	21	13-15 ^(c)
Net investment	156	20	13-15 ^(e)

^a Contribution to national income (net material production).

^b Including public consumption.

^c Guidelines.

^d Author's estimate.

^e Guidelines state that investment's share of distributed national income will be limited to 20%, i.e. the planned 1980 ratio.

The Guideline projections are based on the assumption that the economy can be made to work more efficiently. Some of the bottlenecks contributing to decelerating growth rates in recent years—transport, energy, agriculture,

foreign trade, and the functioning of the economic system in general—receive special attention in the Guidelines. The problems in these areas and the recommendations by the Guidelines are discussed in the individual sections below.

Labour Supply

As shown in Table 2, population growth in the age group 20–65 years will decline somewhat in 1981–85 and rather sharply in 1986–90. Because of the expected retirement of farmers already past pension age, the total labour force will only rise slowly in 1981–85 and probably 1986–90 as well. Agriculture will bear the brunt, but all sectors will feel the shortage, especially in the second part of the eighties. Estimates in Table 2 below assume a reversion downward of the present growth in nonproductive employment.

Table 2
Population and Employment, 1970–90

	1970	1975	1980 (‘1000)	1985	1990
a. Total population	32658	34185	35335	36522	37423
b. Population 20–65 years old	17781	19343	20888	22055	22445
c. Total employment	15175	16946	17450	17600	17100
Private agriculture	4408	4267	4200	3700	3200
Other material production	8788	10269	10620	11100	11000
Non-material branches	1979	2410	2630	2800	2900
Ratio a-b/b	0.84	0.77	0.69	0.66	0.67
Ratio a-c/c	1.15	1.02	1.02	1.08	1.19

Explanation: 1970 and 1975 figures: *Rocznik Statystyczny 1979*. Population projections 1980–90: *Rocznik Statystyczny 1975*, page 33. This official projection has since been revised upwards because of rising birth rates, but figures for population in productive ages are hardly affected. Projections for employment are based on the assumptions that the 1980 employment ratio is maintained for the population in productive ages, and that 800,000 private farmers past 65 years will retire in each half of the eighties.

The official 1975 prognosis of Table 2 has since been revised upwards.³ Maintenance of the high birth rates of recent years will thus increase the 1990 ratio of population in non-productive/productive ages. Anyway the ratio of persons employed/persons not employed will increase during the eighties as shown in Table 2 due to the expected massive retirement of private farmers.

Capital Stock

With investment developing as assumed in Table 1, capital stock should grow as indicated in Table 3.

Table 3
Capital Stock, 1971–85

	1971–75	1976–78	1976–80	1981–85	1978 structure (%)
	Total growth during period (%)				
Total capital stock	33	27	37	25–26	100
Non-productive assets	15	12			32.7
Productive assets	47	31			67.3
Industry	60	36			32.6
Building industry	92	47			3.2
Agriculture	28	23			15.1
Forest industry	18	12			0.5
Transport and communication	40	27			10.5
Trade	21	16			1.9

Source: 1970–78: *Rocznik Statystyczny 1979*; 1981–85: author's estimate.

Despite maintenance of the 1975 investment level in 1976–78 and drops of 9–10% in 1979 and 1980, capital stock has grown faster in 1976–80 than in the 1971–75 period, when investment rose steeply, but started from a relatively low level.

Capital stock will rise substantially in 1981–85, although the growth will level off. Even with investment fixed at the 1980 level (instead of rising in proportion to consumption), capital stock will be 24% bigger in 1985 than in 1980.

The estimates for 1981–85 growth are not broken down into productive and non-productive assets. However, as house-building is projected to grow relatively slowly (with the number of completed dwellings rising from 1.5 million in 1976–80 to 1.7 million in 1981–85), growth in productive assets will certainly continue to surpass growth in non-productive assets.

Investment Policy

According to Vice-Premier Secomski, Poland will have to “co-ordinate the consequences” of Gierek’s 1977 so-called economic manoeuvre that has required “radical changes in the directions and structure of investment” (i.e. boosting production for the market and for export and investment in housing and agriculture) causing “unavoidable disturbances or even transitory disproportions in the structure of development, which now need to be mitigated or balanced”.⁴ This means that the sectors neglected (railway transportation, power generation, raw material investment, etc.) will get special attention over the next few years. Along with these new priorities the Guidelines also emphasise housing, consumer goods, agriculture, and export

production in general. Some capacities to come on stream in 1981–85 are singled out in the Guidelines, e.g. part of the second stage of the Katowice Steelworks, the giant brown coal complex at Belchatow, five to seven new hard coal-mines, five major electricity works, capacities for production of heavy trucks, combiners, and various agricultural machinery, machinery for the building and mining industries, aircraft, plastics, furniture, and paper. However, with these major projects completed, the plan is to reduce the share of long-term projects (with implementation cycles of more than 3 years) from presently 60% to 33% of total investment. Modernization investment in industry should increase its share from 30% to 50%, leaving the enterprises some freedom to decide on such investment, which could bring relatively quick results in export sales and raw material conservation.

Material Supplies

Besides the much publicized scarcity of energy and of transport capacity, a shortage of raw materials and semi-finished goods is now recognized as a severe bottleneck in production, especially since 1977, when a policy of restricting import was introduced. The Guidelines aim at a 6–8% reduction in unit consumption of raw materials. No doubt there are plenty of possibilities to cut the present excessive raw material consumption, especially by way of substitution.⁵ However, some economists⁶ have warned against the short-sighted continuation of this policy of cutting supplies without putting something instead. They emphasize investment in material conserving processes and recommend a policy of boosting material supplies and stocks at the expense of fixed capital investment.

Growth Factors and Forecasting

Other economists have gone as far as constructing growth models with imports effectively representing the only growth factor, while virtually eliminating effects of capital investment.⁷ The author's calculations based on such a simple relationship of industrial production and imports⁸ reveal a risk of net industrial production stagnating in 1981–85 if imports from the West are kept at the 1979 level and imports from socialist countries rise by a total of 16% over the 1979 level. Even with imports from both areas increasing by 16% and growth parameters improved by 6% (in accordance with plans to reduce unit material consumption), 1981–85 growth in net industrial production may be as low as 12%. On the other hand, a similar calculation with productive capital stock as the sole growth generator produces a 46% rise in industrial production.⁹

A traditional Cobb–Douglas production function hits within the 1981–85 target of 24% for industrial production.¹⁰ However, this author finds it difficult in a Polish scenario to believe in production models showing high elasticity to labour input. Labour shortage may affect individual sectors or factories, but it has probably not affected the performance of industry as a whole significantly in the seventies. The author feels that a potential for improving labour productivity exists, so that labour supply should not in the medium term constitute a limit to growth.

It seems on the whole that supplies of raw materials and semi-processed goods will constitute the main constraints to growth in 1981–85. However, the problem of incorporating this constraint into forecasting techniques, and the uncertainty about the prospects for hard-currency imports, of which materials constitute approximately 40%, contribute to blurring the picture. It thus seems quite possible that official production plans on the whole are too optimistic, and that the Poles may be caught in a vicious circle because they cannot afford to import materials needed to expand production and, ultimately, exports and hard-currency earnings.

Industry

According to the Guidelines total industrial production will rise by 20–24% in 1981–85 with the fastest growth in machine building and chemicals, as shown in Table 4.

Table 4
Growth in Industrial Branches (gross production), 1971–85

	1971–75 ^(a)	1976–78 ^(a)	1981–85
	Average annual growth (%)		
Fuel and power	6.6	5.1	4–5 ^(c)
Metallurgy industry	9.9	5.6	3–4 ^(c)
Electro-engineering industry	14.4	9.8	5.9 ^(b)
Chemical industry	12.0	6.3	5.1–6.0 ^(b)
Mineral industry	8.9	5.8	3.4–4.2 ^(b)
Wood and paper industry	9.5	7.6	3.4–4.1 ^(b)
Light industry	8.9	5.6	3.4–4.2 ^(b)
Food industry	8.9	4.3	3.7 ^(b)
Other industries	6.6	7.9	3–5 ^(c)
Total industry	10.5	6.9	4.4–4.8 ^(d)

(a) *Rocznik Statystyczny 1979.*

(b) Guidelines.

(c) Author's estimate.

(d) Above figures accumulated with 1978 weights. These figures correspond to a total growth of 23.9–26.3% for the five-year period, and are thus inconsistent with the 20–24% growth in total industrial production given in the Guidelines. The author can at present see no obvious explanation of the difference.

Output growth in the range of 50–100% can be expected for individual products such as copper, PVC, tractors, diesel engines, and passenger cars (with output of the Fiat 126p doubling from 200,000 to 400,000 and introduction of a new medium-size car). Interesting developments will also occur in the aircraft industry (co-operation with the Soviet Union in building vital parts for the airbus IL-86) and in the shipbuilding industry, where the Poles will continue to adapt to advanced Western requirements and start delivering vessels to the Soviet Union for oil and gas exploration and exploitation.

Small-scale industry will get particular attention. In accordance with the decisions of the 14th Central Committee Plenum from April 1979, responsibilities for small-scale industry is transferred from big industrial associations (WOGs) to local authorities. At the same time big industrial plants are encouraged to sell or rent surplus machinery to small-scale industries and to supply them with necessary materials. A number of new small-scale industrial plants are to be built, especially in food processing.

Energy

According to the Guidelines, hard coal production will rise from 205 million tons in 1980 to 232–35 million tons in 1985. Lignite production is to be more than doubled, reaching 85 million tons (Table 5). Electricity production is to grow by 24–28% over the 1980 output of 127 million kWh. The target for hard coal is in the lower end of previous forecasts. It should be within reach, and so should the target for lignite, where the development of the giant Belchatow field proceeds according to plan. Growth in hard-coal consumption for electricity generating will be limited in the short term because of the slow progress in commissioning new capacities. After 1985 lignite is the only fossil fuel planned to contribute to growth in electricity production. Consumption of hard coal for heating purposes (industrial and individual) and for various industrial processes will rise steadily, but all in all there will be room for a rise in exports on the order of 10 million tons. With the total number of automobiles 40% up by 1985 (over 2,200,00 in 1980) and 100% up by 1990, the Poles have initiated a long-term programme aiming at conserving 1 million tons of oil products in 1985, rising to 5–6 million tons in 1995. The main ingredients will be substitution of heavy lorries for smaller uneconomic vehicles and substitution of methanol for petrol. This should result in relatively modest increases in oil consumption in the eighties compared to the very fast rise in the seventies, and it explains the Guidelines target of refining only 21–22 million tons crude oil in 1985.

However, as oil import from the Soviet Union is expected to be maintained at the 1980 level through 1985, imports from the West will have to rise from

2.5 million tons in 1978 to 6–7 million tons in 1985. Gas imports from the Soviet Union will run at 5.3 billion m³ in 1980, of which 2.8 billion m³ are payment for the Polish contribution to the Orenburg line. Plans for gas imports in the eighties have not been published yet, but import is estimated to rise relatively slowly in the first half of the decade, and then more sharply towards 1990, partly on the assumption that plans for construction of a large new gas pipeline from northern Siberia via Poland and GDR to Western Europe will materialize. Plans for gasification of Polish coal using Krupp technology have evidently been scaled down to a pilot project yielding only 1 billion m³ annually. Poland has been late to initiate plans for the construction of nuclear power stations. Officially nuclear generating capacity should reach 5000 MW in 1990, but completion of three reactors with a total capacity of 1800 MW, covering approximately 4% of electricity production in 1990, is probably more realistic.

Table 5
Fuel Balance 1970–90

	1970	1978	1985	1990
Production				
Hard coal (million tons)	140.1	192.6	235	250
Lignite (million tons)	32.8	41.0	85	135
Natural gas (billion m ³)	5.0	7.6	8	8
Oil (million tons)	0.4	0.4	0.5	1
Consumption				
Hard coal (million tons)	109.6	151.4	183	220
Lignite (million tons)	29.1	37.7	82	132
Natural gas (billion m ³)	6.0	10.4	15	20
Crude oil and production (million tons)	8.5	18.5	23.5	27
Net Import				
Hard coal (million tons)	-30.5	-41.2	-52	-30
Lignite (million tons)	-3.7	-3.3	-3	-3
Natural gas (billion m ³)	1.0	2.8	7	12
Crude oil and production (million tons)	8.1	18.1	23	26

Sources: 1970 and 1978: *Rocznik Statystyczny 1979*. 1985 hard coal production: Upper limit of Guideline target frame. 1985 and 1990 lignite production: Mid of Guideline target bracket. Other 1985 and 1990 figures: author's estimates. Further details on estimation procedures and conversion factors used are available from the author on request.

In the long term the energy sector will claim a substantial share of investments. Projects now being planned or implemented will probably lessen the tensions in this sector sometime in the mid eighties. Gas and oil will

continue to increase their share in consumption. Paradoxically, coal exports will increase in the medium term in spite of an unsatisfied domestic energy demand, because the inadequate increase in power generating capacity cannot absorb the increase in coal production.

Transport

Projects under way in the transport sector seem to substantiate the above estimates on coal exports. The broad-gauge "ore sulphur" railway from Silesia to the Soviet border, already commissioned, will carry a substantial part of the 10 million tons coal export to the Soviet Union. On the upper Vistula an inland harbour scheduled to handle 18 million tons of coal transported directly by conveyor belts from nearby mines is under construction. Furthermore, a second coal trunk line running north from Silesia with branches to Gdansk and Swinoujscie is under construction. The railways are to receive more and better material, and electrification will be expanded. Transportation on inland waterways will increase by 55–80% and cargo handling in sea harbours by 29–37% over 1978 according to the directives. The tonnage of the merchant fleet is scheduled to increase by 15–20% from 1980 to 1985. On the whole, those plans sustain the estimate of a 17–21% increase in the net output of transportation. This should keep this sector growing faster than national income, but more slowly than industrial production (Table 1). However, much of the new capacity will be available only towards the end of the 1981–85 period.

Building Industry

As noted earlier, the number of dwellings to be supplied in 1981–85 will be maintained at a high level (340,000 annually). With the average size of dwellings increasing somewhat, housing will be a growth factor in the building industry, while the cautious investment policy in industry probably will pull in the opposite direction. This will leave some room for increasing non-productive building activity (schools, hospitals, vacation facilities). The Guidelines contain no target for total building industry performance in 1981–85, but on the above assumptions a 5–8% rise in the sector's contribution to national income has been estimated.

Agriculture

Presently, 3 million private farmers own 68% of the 19 million ha agricultural land (but they actually till 75%, leasing the difference from State organizations). Average size of private farms is only 4.7 ha. Thirty per cent of

the farms have an area smaller than 2 ha; 55% of the farms (covering also 55% of the land) are in the 2–10 ha bracket; while the remaining 15% occupy nearly 40% of the area. Socialist farming is dominated by the 1700 State farms with average holdings of 2300 ha, while co-operatives and “agricultural circles” play minor, albeit increasing roles.

A special pension scheme will come into full force in July 1980. Farmers aged more than 65 years who hand over their farm to a family successor will receive a pension equal to 20% of 5 years’ average agricultural sales. Farmers with very small holdings or with no family successors will also get a pension, but on the condition that they transfer their land to the State Land Fund. It is estimated that 400,000 farms will disappear during the eighties because their owners have no successors¹¹. This will affect 10% of private agricultural land, half of which is scheduled for enlargement of private farms and the rest for expanding socialist agriculture. This presumes a continuation of the present official policy, asserting that land is distributed from the Fund to those best able to till it. In reality local authorities have favoured State farms, especially in a period in the mid-seventies, when virtually no land was distributed to the private sector. The leadership will probably have a hard time fighting such orthodoxy within local State and Party organizations.

The pension scheme aiming at transfer of farms directly to successors circumvents State interference, but, on the other hand, also tends to freeze the present outdated land structure, leaving most changes to occur in the age structure. Presently, 1 million persons out of the 4 million labour force in private agriculture are above the age of 65 and a further million are aged 56–65 years. Some observers expect ownership changes on a third of the farms within the next few years, but the problem involved in offering young successors convenient living and working conditions will probably prolong the process. On this background it seems reasonable to expect retirement of 1.6 million farmers over the 1980–90 period, leading to a 1 million reduction of the work-force in private agriculture (Table 2).

The nominal reduction in the labour force and the abolition of a number of small farms run by relatively labour intensive methods could in theory lead to a fall in production, but this will probably be outweighed by the influx of younger, stronger, and better educated people and by a more intensive exploitation of the limited stock of machinery and other inputs.

The Guideline target of a 12–13% rise in net final agricultural production in 1981–85 may look modest. However, the 5 years from 1975 to 1979 have been pretty poor, and serious drops occurred in crop yields and pig-holdings in individual years (Fig. 1). A steady 2–2.5% annual rise in agricultural output in 1981–85 would be a quite substantial improvement.

As shown in Fig. 1 grain yields are to rise substantially over the average 1976–80 level, but only to the upper end of the original 1980 target frame,

and not far above the 1974 peak. Potato yields will grow along the trend line of the seventies.

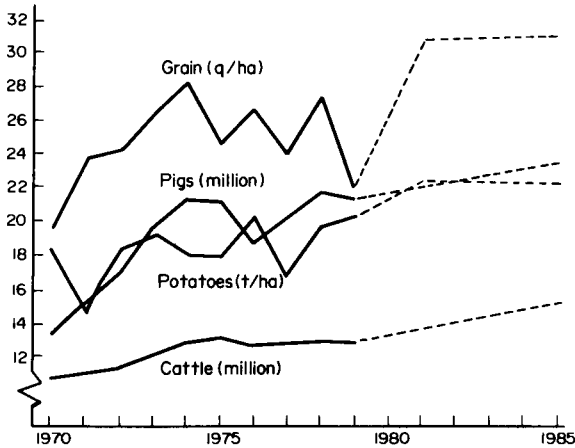


FIG. 1. Crop yields and animal stocks 1970-85

The cattle stock is expected to increase somewhat after a stagnation in 1975-80. A more intensive exploitation of meadows and other pastures should contribute a substantial part of the required increase in fodder. The pig population is expected to grow only moderately in 1981-85. This may reflect the expected drop in agricultural employment, especially on small farms, and a decision not to build more large-scale pig farms. Such farms have proved rather inefficient, especially in terms of meat production per fodder unit. The Guidelines call for a balancing of agricultural trade in 1985. According to Z. Grochowski, vice-director, of the Institute of Agricultural Economies, this could be accomplished by cutting fodder import,⁵ to the equivalent of 5 million tons of grain, composed of mainly corn and other high-protein fodder.¹²

Guideline targets for the number of tractors and NPK-fertilizer supplies in 1985 (0.04 units and 230-250 kg/ha respectively) show a continuation of the 1971-80 trend, which will probably also be the case for the delivery of various other material inputs and services for agriculture. However, the 1985 targets also demonstrate that demand for agricultural inputs will be far from met. Especially inputs in private agriculture will continue to be insufficient. The policy of increasing the private sector's share in inputs will be continued, but this sector cannot even by 1990 reach the technological standards of the state sector.

Foreign Trade

The Guidelines give only a vague idea of planned development in foreign trade in 1981–85. The only real guidance is the information that the share of exports in industrial output will rise from approximately 14% at present to 17% in 1985, and that trade with agricultural goods is to be balanced.

As mentioned earlier, industrial co-operation with the Soviet Union will be intensified, but to what extent is difficult to tell at present since the trade agreement for the 1981–85 period has not been concluded yet. In the energy trade only slight increases are expected, and the rise in world market prices for oil and other major commodities will indirectly curb total deliveries. Even with world market oil prices remaining at the present level, actual prices for Soviet oil deliveries will gradually rise by 150% from 1979 to 1985 according to the present CMEA price agreement. Higher prices on coal and other hard goods exported to the Soviet Union can only partly make up for the increase in import prices. With a hypothetical real term 25% increase in exports and a 15% increase in imports over the 1979 level *vis-à-vis* the Soviet Union, Poland can cover part of an estimated 20% deterioration in her terms of trade, but the trade deficit will nevertheless keep rising, accumulating a debt of 1.5 billion roubles by 1985. Together with an also hypothetical 18% growth in trade with other socialist countries, total exports to socialist partners may increase by 23% and total imports by 16% over the 1980–85 period.

Based on the above hypothesis on socialist trade and by elaborating on the information that export's share in industrial output is to increase from approximately 14% at present to 17% in 1985, a 75–90% real increase in exports to Western countries is derived. This estimate fits in nicely with the official information furnished to Western banks in connection with a \$500 million credit at the beginning of 1979. The Polish authorities at that time estimated hard currency exports to grow from \$5.5 billion in 1978 to \$11.2 billion in 1985, while imports were to rise slowly from \$7.0 billion in 1978 to \$7.8 billion in 1985, producing a small trade surplus already in 1980. On these assumptions the hard-currency debt (presently standing at \$17 billion) would top at around \$18 billion in 1981 falling to approximately \$8 billion in 1985.

In 1979 imports were bigger than planned because of extraordinary needs and unexpected price increases, adding \$1 billion to the planned trade deficit. Rising interest rates in the West will add another \$1 billion this year to the payment deficit. Poland will have to borrow approximately \$5 billion for several years to come just to service the existing debt, which means that the Polish authorities will have to stick to the above plan in order to maintain the confidence of Western creditors.

In real terms the plan means that the share of total production earmarked

to cover deteriorating terms of trade towards the Soviet Union and repayment of debt to the West will gradually rise, reaching 7–9% of “national income” in 1985. To be consistent with the Guidelines targets, the upper variant of national income growth (18% in 1981–85) and the lower consumption variant (13% growth) must be implemented, with investment kept completely level.

Expanding exports to the West by about 10% annually will demand very substantial efforts, especially as coal exports, presently accounting for 25% of export revenue, cannot rise at that pace. The plan to balance agricultural trade implies a 50% growth in food industry exports. If meat alone is to supply the revenue, exports must be doubled to almost 300,000 tons in 1985, i.e. 10% of expected production. There might be a chance that terms of trade could change in favour of Poland, especially if coal exports can cash in on soaring oil prices. However, the opposite may as well be the case thus eliminating the planned moderate increase in imports from the West. A solution could be to cut down further on imports of Western machinery in order to maintain planned raw materials imports. In any case, the authorities will have to reconsider their policy in that respect in a few years' time when raw materials and semi-finished goods will become an even more severe constraint on industrial growth. However, the scope for restructuring imports is limited, as imports of raw materials do not enjoy the favourable credits offered by exporters of capital goods. Obviously, Poland has already negotiated a re-scheduling of the repayment terms for some official export credits, and has managed to persuade Western governments to guarantee general purpose credits on the “collateral” of future coal and raw material deliveries. However, room for manoeuvring in foreign trade is very limited, and this situation may well continue for the next 5 years, hampering not only economic growth but also the necessary re-structuring of the economy.

Living Standards

In 1981–85 real wages are to rise by 9–11% according to the Guidelines. Pensioners and recipients of social allowances will get higher increases and so will farmers if production targets are met. Total per capita “real incomes” (including benefits in kind from public consumption funds) are to grow by 10–12%. As the population will increase by 3%, total consumption must thus go up by 13–15%.

Plans to apply new labour norms will hardly affect individual work performance for the next few years, and a planned linkage of wages to productivity thus will probably have most effect in balancing production and consumption at the macro-economic level. Experience from the seventies

shows that nominal wage increases seldom stick to the planned limits. Local and central management have tended to yield to workers' pressure for irregular wage raises. Consequently a policy of gradual price increases has been introduced in recent years, officially raising the cost of living by 8.5% and 6.7% in 1978 and 1979 respectively. Furthermore, there have been hidden increases (e.g. the shifting of food sales from ordinary to "special" shops) probably taking inflation into double-digit rates.

This policy is to be continued in 1981–85, bringing not only a gradual rise, but also—according to the Guidelines—a gradual "rationalization" of prices. Admittedly, increases in energy prices and the partly concealed rising of food prices might count as "rationalization", but the general impression is that this policy affects the price structure more or less at random. No repetition of efforts to introduce major price hikes including basic food items can be expected in the present political situation. Despite a planned 20% increase in food industry output during 1981–85, supplies of food will rise very slowly provided the plan to balance agricultural trade is carried out.

Economic Reforms?

Criticism from circles within and outside the Party may at long last have convinced the Polish leadership that the country is in need of real economic reforms. The Guidelines section dealing with improvement of planning, management, and organization at least leaves the door open for reforms in the sense that it lists a number of measures to be taken. These include expansion of short-, medium-, and long-term planning and balancing, improvement in discipline, re-defining of the responsibilities of ministries and WOGs (large economic organizations), and extension of the role played by economic, financial, and pricing instruments.

There now seems to be consensus among Polish economists that the whole management and incentive system needs a reshuffle and that further elaboration on the present system should be avoided.¹³ Nevertheless, the Guidelines foresee a procedure of very gradual changes up to 1983 and thus seem out of step with economic expert opinion.

However, 1983 could be a good timing choice for the introduction of major changes of the economic system, as the next few years will be needed to solve economic problems of more immediate urgency.

In the short term some reform measures are to be introduced in foreign trade. Some major exporting factories have already received their own currency allotments, freeing them from ministerial control of imports of machinery and raw materials. Further initiatives can be expected in this field

and in the organization of small-scale industry, but on the whole no far-reaching reform proposals seem yet to have received the official stamp. However, at the Party Congress in February 1980 and during the preceding campaign the need for reforms was aired, and the new party and government leadership emerging from the substantial leadership reshuffle is dominated by men who agree with Gierek's liberal, pragmatic line.

The men coming into power also appear to be more capable than their predecessors. Although there are no firm indications that the new leadership will opt for radical reforms, a reform policy seems the most likely outcome at present. However, there is of course no guarantee that reform measures will be consistent or, indeed, have the desired effect.

Prospect for the Late Eighties

In the second half of the eighties manpower resources and employment will stagnate. In spite of the planned cautious investment policy the capital stock will have risen substantially in the 1981–85 period, but relatively more slowly than in 1976–80. The trend in basic growth factors thus point to a slowing down of growth rates in the late eighties. However, development of the growth potential in agriculture through continued rejuvenation and modernization, and progress towards a solution of the problems in the transport and energy sectors may well produce higher growth rates. The vast potential for improving labour and capital productivity will probably not have been exhausted by 1985. An improvement in Poland's credit worthiness by 1985 could induce the leadership to resume large-scale imports of Western capital goods, but probably not until the end of the decade and still on a selective basis. The investment scene of the late eighties will be dominated by projects to develop energy (lignite and nuclear power) and perhaps projects for the transit of energy from East to West. The project to regulate the river Vistula will gain momentum in the late eighties, contributing in the short term to an improvement of inland navigation and in the longer term the quality of the soil and even climatic conditions in an area constituting 20% of Poland.

A real improvement in food supplies will depend chiefly on agriculture. However, demand for such goods cannot be fully met except in the unlikely case that a real restructuring of retail prices is carried through. Consumption of industrial consumer goods will increase, but not on the scale experienced in the seventies. There will be at long last a dwelling for every family in 1990 and a car for every second family. However, the stagnating population of working age will have to provide for a growing number of pensioners and probably also a greater number of children.

Conclusions

On the whole the author feels optimistic about long-term prospects for production and living standards but rather pessimistic about short-term possibilities to exploit the potential for growth. For the next few years national income will grow at a rate of 2% annually, rising to 3% in the middle of the decade. In the second part of the decade annual growth rates of 3% in national income or, in the best of circumstances, even more can be expected.

Consumption per capita will probably rise by 1–1.5% annually in 1981–85, i.e. more slowly than officially admitted. In the second part of the decade a 2% annual rise in consumption should be within reach. The hard-currency debt will be lowered by 1985 simply because the repayment structure and the constant threat of a moratorium will force Poland to maintain even sharper austerity measures in foreign trade. However, sometime in the middle of the decade the Poles will become free to decide on the degree of austerity.

Notes

1. Karpinski (1977).
2. The Guidelines were published by *Tribuna Ludu* under the heading "For Further Development of Socialist Poland and Prosperity of the Polish People" in a 63-page booklet supplement in October 1979. This official document is hereafter referred to as Guidelines.
3. Pap 15th December 1978. The total increase over projections of Table 2 amounts to 1,900,000 persons in 1990, of which 1,500,000 are children.
4. Secomski (1979 b).
5. E. Szyr, Minister of Raw Material Economy, in an interview in *Contemporary Poland*, No. 22, 1979, gives plenty of examples ranging from substituting seamless pipes for traditional pipes, better insulation of houses, recycling of waste materials, etc.
6. Chelstowski (1979) and Szwarz (1979).
7. Sadowski *et al.* (1979).
8. $Y=73.04+2.95 M$ ($R=0.9711$), where Y is net industrial production in 1971 prices and M is the index of total import volume in constant prices with 1970=100.
9. $Y=92.09 +0.419 C$ ($R=0.9614$), where C is productive capital stock in industry lagged 2 years.
10. *Zastosowanie metod* (1977) (p. 24). The function for total industrial net production reads: $Y=e^{-7.92} \times C^{0.586} \times Z^{1.192}$, where Z is the number of persons employed in industry.
11. *Tribuna Ludu* 22 October 1979, *Contemporary Poland* No. 7, April 1979.
12. Grochowski (1979).
13. Zielinski (1980).

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The Effects of Energy Development on East European Economic Prospects

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Introduction

This paper deals with the changing pattern of primary energy use and international trade prospects in energy for The Six. It is to follow two days of individual country reviews and assessments for the 1980s of the economic prospects and is to be followed by specialized papers on transport, finance, and trade. As far as possible I have restricted it to the actual energy supply/demand issues and import prospects, since the economic performance and balance-of-payments issues will no doubt be directly focused upon by others.

The oilman's usual self-indulgence of converting most balances to oil equivalent is prevalent: in kilocalorie terms a ton of oil is 10 million units, a cubic metre of good quality natural gas is 9000, a ton of hard (standard) coal 7 million. Electricity which is not generated by fossil fuels (nuclear or hydro) can be equated with the saving that occurs through not having to supply, say, a 1000-MW capacity plant with oil. If a 1000-MW plant has an annual utilization of 67% at full capacity, it is equivalent to 1.5 million tons of oil p.a. (m.t.a.). "Billion", (b.t. = billion tons), is always used to mean one thousand million: thus, for example, a billion cubic metres of natural gas (b.c.m.) is roughly equivalent (90% or so depending on the actual heat value of the gas) to a million tons of crude oil. One barrel of oil per day (b.d.) equals approximately 50 tons per annum (t.p.a.). In this paper "gas" always denotes natural gas.

We have been requested not to look back so much as to look to the future so that historical figures are only used to give a trend to the current position. We have also been asked to take a generalist approach bearing in mind the differing specializations of those present. The paper therefore falls into two parts: firstly, a country by country review of the energy balance by primary sources which is necessary background to what happens in the eighties; secondly, a review of the prospects of The Six collectively as the whole world enters a very different energy decade to anything any of us have experienced before.

As an introduction to both parts I would like to draw attention to some comparisons of energy balances in different parts of the world. Most of you will not need to be told that oil-import dependency has grown rapidly in Eastern Europe (The Six) and you might assume that this had brought them into approximately the same “mix” of primary energy usage as other parts of the world, especially industrial counterparts. Not so. Figure 1 compares the Six with *all* other world regions as they appeared in the 1978 edition of the *BP Statistical Review of the World Oil Industry*, which covers other energy consumption inter alia. (Natural gas is given a shading akin to oil so that both an oil or oil and gas perspective is depicted.) On both counts, Eastern Europe is seen to have a lower oil or oil and gas content in its use of total energy than any main region except China. This is remarkable in view of the relative lack of industrialization in developing areas who nevertheless have a more “modern” energy mix than one of the world’s major industrial areas.

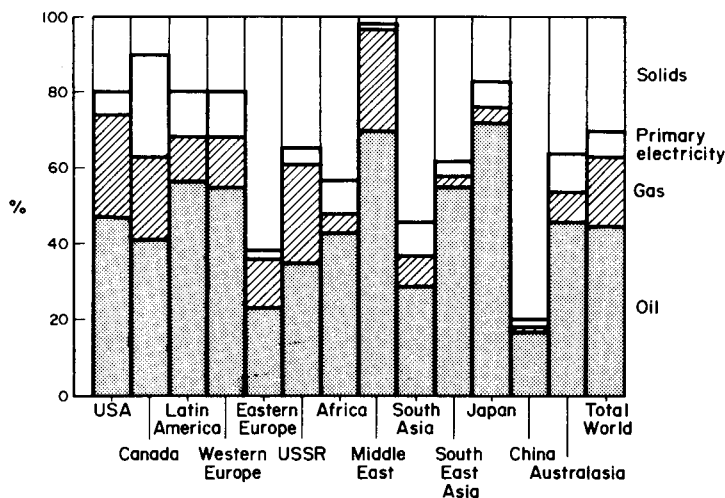


FIG. 1. 1978 per cent total primary fuel mix of oil, gas, solids, etc.

Figure 2 reproduces the comparison for each country of The Six and the USSR, the leading Western industrialized areas, and also for COMECON and OECD as a whole. Two further factors emerge. Firstly, the southern three—(Hungary, Bulgaria, and Romania) emerge as similar to USSR in energy mix (and to CMEA average). Oil is about one-third of their total energy mix, and oil and gas together comprise at least 50% of total energy use. They therefore come midway between the major OECD regions who have about 70% of oil and gas in their mix, and the “northern three” (Poland, the DDR, and

Czechoslovakia) whose total use of oil and gas is only one-third of total energy, and of oil alone a mere quarter. But the second point is that the incremental trend in The Six during 1970–78 is much more similar in shape to the OECD mix, with nearly 70% of new energy demanded as oil or gas.

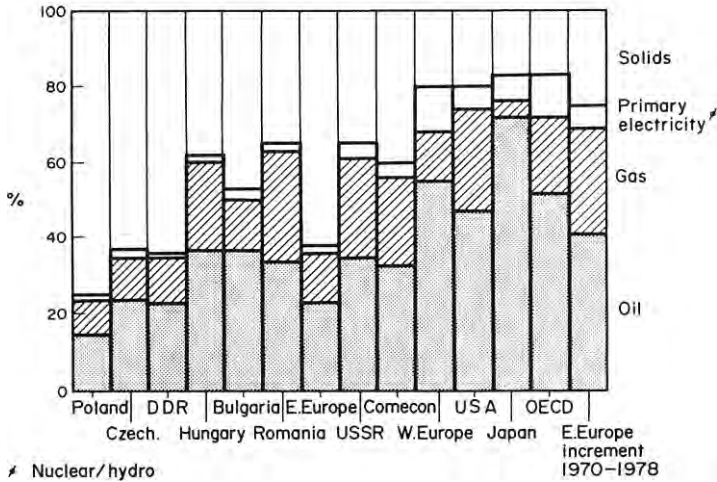


FIG. 2. COMECON and OECD comparative primary energy mix, 1978.

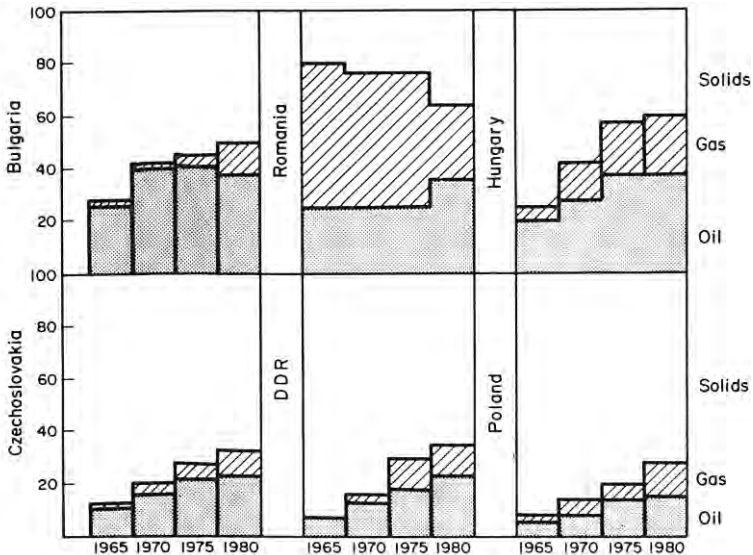


FIG. 3. Total domestic consumption per cent primary energy. In none of these is primary electricity more than 3%.

Figure 3 shows the percentage use of oil and gas for each of the six countries at 5-year intervals from 1965 to the present. Non-fossil fuels (for electricity generation through hydro and nuclear power) are less than 3% of the total, so that the balancing item is essentially coal or lignite. This again emphasizes the higher use of oil and gas in the southern three, but in all cases the percentage growth more than doubles through the period—except Romania. This may serve as an introduction to the country reviews, which will show that all the countries including Romania are facing a major change in emphasis in fuel development.

I. Country Reviews

Bulgaria

Oil and gas now make up one-half of total consumption, but this has almost entirely been due to the increase in imports from the USSR. Imports of Soviet oil doubled from 6.0 m.t.a. in the late 1960s to 12 m.t.a. By 1975 they reached 11 m.t.a. but have since remained at little more than this level. This is partly due to the development of oil imports up to 1 million tons (m.t.) from non-CMEA sources in which Libya, Iraq, Syria, and Kuwait have from time to time been reported as suppliers. It is also partly due to the commencement of deliveries of natural gas from the USSR. Since completion of the pipeline in 1974, deliveries rose from 1 b.c.m. in 1975 to a projected 6 b.c.m. for this year, dependent upon full development of both main internal systems linking Sofia in the West with the import line via two separate routes spanning the country.

Domestic oil production is limited to about 100,000 t.p.a. after achieving five times this level 15 years ago. Reserves are in the order of 2 m.t. Shale oil deposits exist, with only a 5% liquid content, but reserves are extensive.

Solid fuel mineable reserves are 2 billion tons (b.t.). Coal production exceeds 30 m.t. of which nearly three-quarters is used in electricity production, and currently provides 80% of total electricity production (38 billion KWh in 1980). Half of this is from lignite. Hydropower provides another 10% of electricity. Since 1974 there has been a nuclear power plant at Kozloduy (880 MW) and scheduled to double by the early part of this year, which would make nuclear about 20% of total generating capacity. By 1990 the nuclear share of total generating capacity is planned to rise to 50% with solid fuels continuing to provide the balance of demand. Total capacity is likely to double by 1990 from the current 9000 MW.

Bulgaria currently imports two-thirds of total energy requirements including several million tons of hard coal annually from USSR.

All oil and gas increases in demand will have to be covered by imports.

Romania

Fast economic growth has been based on domestic oil and gas, which until the mid-seventies provided three-quarters of total energy needs and also a valuable international refining and product export role. However, both oil and gas production have passed their peak. Romania not only faces slower growth than in the past but this year is also purchasing oil and gas from the USSR and planning to expand indigenous solid fuels production and nuclear power like other Eastern European members of CMEA.

Oil reserves at 150 m.t. (recoverable) are equivalent to 10 years of current production, but new offshore discovery prospects have so far been small. Refining capacity at 27 m.t.a. in 1978 required imports of 12 m.t. of which three-quarters were contracted with OPEC states and the rest was short-term world market business. About two-thirds of this import value was re-exported outside CMEA, but Romania is now a net importer of oil.

Gas reserves only represent 5 years' annual production and the fall in production since 1975 is expected to continue. But oil and gas still represent over 50% of total energy use, higher than any other CMEA country except the USSR.

Import dependency for both fuels appears likely to continue. Offshore oil exploration is unlikely to reverse this trend. Deep drilling to 10,000 m (very deep even by world standards) is likely to take many years. The recovery factor of 30% (of total estimate oil "in place") in existing fields is about the world average. Technical improvements may increase the amount of recoverable oil over time but are unlikely to have a major impact on daily rates of production.

Solid fuels are therefore receiving greater emphasis than ever before, especially for electricity. Total output in 1978 was just under 30 m.t. Deep mined coal accounted for 30% of total output in 1977. With the Jiu valley mines in operation the plan is to produce 50 m.t. in 1980, about three-quarters of it lignite, and by 1985 rising to 85 m.t. (lignite 85%). Already about 80% of the coal produced is for electricity, providing 40% of total generating requirements of 18,000 MW but 30% still comes from oil and gas, with hydropower accounting for nearly another 30%.

Nuclear power and other new sources are planned to virtually eliminate the use of oil and gas in electricity by 1990 when the sources of electric power are to be: coal 44%, hydro 24%, nuclear 18%, 10% unconventional (including 1000 MW shale at Anina), oil and gas only 4%. The first nuclear plant in Romania is expected in 1985 as a result of the contract for Canadian Candu natural uranium reactors which has the advantage that imports of enriched fuel will not be involved. 660 MW nuclear capacity by 1985 is to be extended to an ambitious 3960 MW by 1990, but if this is to be achieved it will exceed the potential of the Canadian agreement, and reactors from the USSR will also be involved.

Metallurgical coal from North America is also due to be imported commencing this year, and interest in imports of steam coal is also apparent.

The country is currently dependent upon imports for only one-quarter of its energy needs, but this will deteriorate unless solid fuel production and nuclear and hydro capacity expand to offset the prospect that oil and gas production will continue to decline. It remains to be seen whether the solid fuel programme up to 1985 and the nuclear and solid fuel targets for 1990 can possibly be achieved in a fairly limited development time.

Hungary

Hungary, like Bulgaria, has passed Romania in its percentage use of petroleum in the energy balance. Oil and gas make up 50% of total energy (double the percentage in 1970) and largely as a result the nation is 50% import dependent for its energy. This has meant increasing imports from the USSR. Soviet oil imports have doubled during the past decade to 9–10 m.t. by 1979 and gas deliveries are nearly 4 b.c.m. A small amount of gas is imported locally from Romania.

Perhaps of all the six countries, Hungary has the best prospects for maintaining its domestic oil production. The Great Plains fields provide three-quarters of total output and there are prospects for extending the number of discoveries of small fields at depths less than 300 m and deeper drilling is now under consideration. Assisted recovery methods are also actively being considered. A significant proportion of the gas is associated with oil production. One result is the development of an extensive gas pipeline network. Domestic output in 1979 was 2 m.t. of oil and over 6 b.c.m. of gas. Oil reserves were estimated in 1975 at 30 m.t.

Nevertheless, any major increases in demand for either fuel must come from imports. The Adria oil pipeline has just begun deliveries into Hungary, and prior to the world price of crude oil doubling in 1979 the expectation was that non-CMEA imports would rise from less than 1 m.t.a. to 2 m.t.a. in the near future. Further gas deliveries are expected from the USSR with the build-up of Orenburg "Sour" gas (similar in quality to domestic production) and of back-to-back deliveries USSR–Hungary and Hungary–Yugoslavia.

Coal production in 1979 was 25 m.t. Except for the southern Pecs fields of hard coal, the main production is of brown coal from two areas north-east and north-west of Budapest. The calorific values of the brown coal vary from one-third, to one-half of "standard" coal. Seventy per cent is used in electricity generation, and a steady increase in production to 50 m.t.a. by the end of the century is planned. Progress is slow, however, and targets often only achieved by overtime working.

Generating capacity is the smallest of the six countries at 5500 MW last year.

A major build-up of nuclear electricity is therefore planned starting with a standard USSR 400-MW reactor at Paks this year which will represent 7% of generating capacity. By 1985 additional PWR reactors at this site are scheduled to quadruple capacity, and by 1995 total nuclear capacity 15 times the 1980 level is envisaged. Uranium resources are understood to be significant.

Hydroelectricity projects centre on joint Czech-Hungarian Danube sites for nearly 1000 MW capacity after 1988.

Czechoslovakia

Oil is found in tiny quantities near the Austrian border and in the extreme east of the country. At the beginning of 1975 reserves were about 2 m.t. (recoverable) and production less than 3000 b.d. (100–150,000 t.p.a.). The pattern is familiar: oil imports from the USSR doubled from 1970 to this year when about 19 m.t. is expected to be imported, together with 8 b.c.m. gas (indigenous production is about 1 b.c.m.). Adria line imports have yet to be effected (about one-seventh of the line capacity of 700,000 b.d. is “allocated” to both Czechoslovakia and Hungary). Non-CMEA oil purchases are so far insignificant. Much more significant—until recently—was the 20-year deal with Iringas back-to-back with IGAT deliveries into the Caucasus. Under this deal some 3 b.c.m. of USSR gas would have been delivered annually while Iran under “IGAT II” would have expanded the pipeline gas deliveries under “IGAT I” into the Caucasus. The gas supply is associated with the rate of oil production in Iran which is less than 50% of the level 2 years ago. IGAT II is shelved perhaps indefinitely and IGAT I is operating at significantly lower volume and with Iranian demands of prices four to five times previous levels. The effect of these volume and price changes on Czechoslovak imports from USSR is still uncertain.

The solid fuel production target for this year is 125 m.t. Lignite from north Bohemia contributes nearly 100 m.t. and reserves are adequate for another 50 years at this rate. Hard coal production at Ostrava, at 28 m.t.a., also has reserves (1.7 b.t.) equivalent to 50 years’ production at current levels.

Electricity was provided 90% by coal and 10% by hydro-power until the inauguration last May (by Mr. Kosygin) of the nation’s first nuclear plant at Jaslovske Bohunice, a Soviet 440-MW reactor. A second reactor is scheduled for later this year to bring nuclear capacity to 5% of total. By 1985 nuclear capacity is to reach 3500 MW, and the emphasis is heavily upon nuclear generation rather than fossil fuels.

Because of the predominance of solid fuels, import dependency is held down to one-third of total energy requirements. Uranium deposits are understood to be extensive, and the new “yellowcake” plant at Strazpod Ralskem, together with construction at Skoda of USSR-type nuclear reactors for several CMEA

nations, make Czechoslovakia the most important nuclear power in the CMEA outside the USSR.

DDR

As in Czechoslovakia, small quantities of oil (4000 b.d.) have been produced for several decades, mainly in the Hartz area from about 2500 m depth. Reserves of recoverable oil were reported in 1975 at about 3 m.t. compared with current demand of over 20 m.t.a. Gas production has been declining in the past 5 years and is now about 6 b.c.m. Oil imports from the USSR have doubled during the decade to 19 m.t. this year and gas imports rose to 4.5 b.c.m. last year. At least 1 m.t. of oil in 1979 came from non-CMEA sources. There is considerable cross-trade overland with the FRG including hard-coal imports and exports of oil products. In 1978 these comprised 250,000 tons of gasoline, 1,250,000 tons of diesel oil, 500,000 tons of heavy fuel oil, and some minor products.

Again, like Czechoslovakia, the energy economy centres around a massive production of solid fuel, 260 m.t. of lignite. Reserves at 18 billion tons are adequate but overburden is increasing—the average overburden depth has doubled in 25 years—and by the end of the century lignite is expected to be surpassed in importance by other fuels. Solid fuels cover more than 60% of total energy and 82% of total electricity capacity which is estimated at 20,000 MW. Nuclear power at 1300 MW is 7% of the total making the DDR the most advanced nuclear generator of The Six.

Poland

Oil reserves were reported in 1975 to be 40 million barrels and annual production is about 0.5 m.t. Gas production is estimated at about 7 b.c.m. but expected to decline. Current levels of demand are about 19 m.t.a. oil and about 11 b.c.m. of gas. Oil imports from USSR in the first half of 1979 were at an annual rate of 16 m.t. and gas at 4 b.c.m. The balance of imports of oil came from non-CMEA sources. "Compensation" deal deliveries from the USSR include about 1 m.t.a. oil during the next decade and 2.8 b.c.m. of gas annually from their Orenburg participation ("Soyuz").

Poland is almost totally a coal-based economy with 79% of total energy provided from this one source as recently as 1978. Poland differs sharply from East Germany in the predominance of hard coal which this year will represent 80% of total output of 240 m.t. and in having a major export trade which places it in the world's top three coal exporters with the United States and Australia.

Exports of coal exceed 40 m.t.a. of which 15 m.t.a. are to other CMEA countries and the rest mainly to Europe but also Africa and Latin America. Consequently it is the only country of The Six with a net energy balance in surplus.

Total coal reserves exceed 50 b.t. Lignite reserves are 10 b.t. Nearly all the coal is deep mined. Production could expand to reach 250 m.t. plus 110 m.t. of lignite by the 1990s, according to some forecasts, but whether exports will expand in the new world energy situation is uncertain.

Total generating capacity is about 25,000 MW, over 95% coal-fired including 25% from lignite. Hydro-power expansion, mainly through "cascades" on the Vistula, could add 2000 MW by 1990, and this year sees the first 440-MW nuclear plant contracted at Zarnowiec (Gdansk area) for commissioning in 1984 with at least two more to follow.

Summary of Area Reviews for Eastern Europe as a Region

Figure 4 summarizes the position for the area as a whole. Fossil fuels dominate the energy balance. Solid fuels provide 80% of electricity and, because of the special export role of Poland, are in surplus overall. The majority of electricity-generating capacity not provided by solid fuels comes from hydro-power, and in future a major role, perhaps over-ambitious in timing, is allocated to nuclear power. Only in Romania does oil and gas provide a large share (30%) of electricity, but this is to be phased out almost completely in this decade.

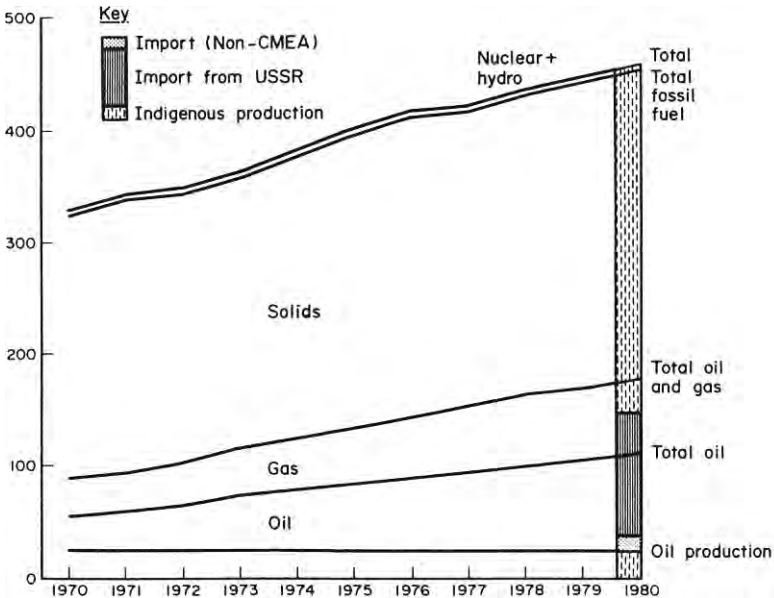


FIG. 4. The Six energy consumption, 1970-80, in m.t.o.e.

However, the Polish coal export surplus should not mask the problems in low-grade lignite production in the DDR, Czechoslovakia, and Hungary, nor the difficulties in Romania's attempt to switch to coal in the Jiu Valley developments. Increases in these countries production are becoming more demanding of total input effort due to quality variations, increases in overburden extra shift working, and so forth.

Nuclear power, although scheduled to play a major role in the later part of the decade and beyond, is barely off the ground, and the number of nuclear power plants due to be added to generating capacity in the next 5 years—approximately seventeen if there is no slippage—will save the equivalent of 12 m.t.a. fossil fuels, or about 2% of total primary fuel requirements (oil equivalent).

Hydro-power and other sources of generating capacity are in a similar perspective to that of nuclear power to 1990: in the longer term the potential is lower.

Oil and gas production are declining, and unless there is a rapid change in prospects in offshore or deep drilling, the inability of Romania to continue to offset the decline in both oil and gas production in other countries in the region indicates that a fall-off of up to 20% in the production of both fuels appears likely to occur by the middle of the decade.

Prospects for electricity therefore depend on indigenous sources, but all oil and gas growth is import dependent.

II. The Eastern European Economy: Energy Prospects

Figure 4 shows imports from the USSR—oil up to 1975 and oil and gas thereafter—and the extent to which they have met the balance of demand with only a small quantity of oil imports needed from non-CMEA sources in recent years. Allowing for Romanian re-exports to non-CMEA areas and trade between the two Germanys, the net imports for The Six combined are about 10% of total demand, which now exceeds 100 m.t.a. USSR imports are about 70% of total internal demand by way of contrast and approaching half of total gas supplies. Table 1 shows in broadly rounded numbers the build-up in Soviet supplies and the increasing emphasis since 1975 on gas.

Even allowing for the measurement of gas in b.c.m., the absolute volume of gas in terms of fuel value that has been added to supplies since 1975 is greater than the incremental volume of oil, i.e. if our assumptions about 1980 are approximately correct. This emphasis on gas is about to be accentuated. Several Soviet statements that energy supplies in the next 5-year period would increase 20% above the average level of deliveries under the current plan to European CMEA but that oil supplies would be not less (not more?) than in the current period suggest that the emphasis will be heavily upon gas

(and some high-voltage electricity transmission). Gas is about one-seventh of Eastern European energy demand, and despite falling indigenous production there are good prospects that the USSR can maintain sufficient supply to at least hold the share of natural gas in the fuel balance of The Six.

Table 1
USSR Exports to The Six Countries

	Oil m.t.a.			Natural gas (b.c.m. p.a.)		
	1970	1975	1980 est.	1970	1975	1980 est.
Bulgaria	7	12	13	—	1	6
Czechoslovakia	10	16	19	1	4	8
DDR	9	15	19	—	3	6
Hungary	5	8	10	—	1	4
Poland	9	12	16	1	3	5
Romania	—	—	1	—	—	1
Total	40	63	78	2	12	30

Figure 5 attempts to project 1985 energy and oil requirements against this background. Up to 1973 oil demand rose at 10% p.a. Since then the rate of oil growth has halved but still exceeded the relative growth rate for total energy. The extraordinary events of 1979, the excessive winter problems, the Iran crisis, and the doubling of world market oil prices and major increases in oil prices within CMEA make short-term estimating unstable; but the trend is no doubt downward in terms of growth rates in the economy in the past 12 months. Therefore the 3% p.a. energy growth evident in recent years will not have improved when the dust clears from 1979/80. In the short run it is possible that oil growth is as slow as energy growth but is most unlikely to be lower. If these low trends maintain through the whole of the next 5-year plan period an average annual energy growth rate of 2–3% and an oil growth rate of 3½% p.a. but more probably 5% p.a. will be the result. These are desired rates of growth even if the economy does not pick up above the dismal levels of the present 5-year plan period in its later stages. They are not forecasts, but tools through which to acquire perspective regarding supply prospects.

Figure 5 shows that taking the 1980 base as 450–460 m.t.a. energy (oil equivalent) another 60–75 m.t.a. would be needed on this basis by 1985 of which between 20 and 30 m.t.a. extra oil would be required in that year. This is a similar increase of 5 m.t.a. that we have observed in the years 1974–79 when about 50% of it was met by supplies from USSR. The current pattern of providing another 20 m.t. of oil over 5 years has been at least 50% from USSR, 30% from *increased indigenous production*, and the balance non-CMEA import. Now it must *all* come from imports. What are the prospects from USSR and non-CMEA sources respectively?

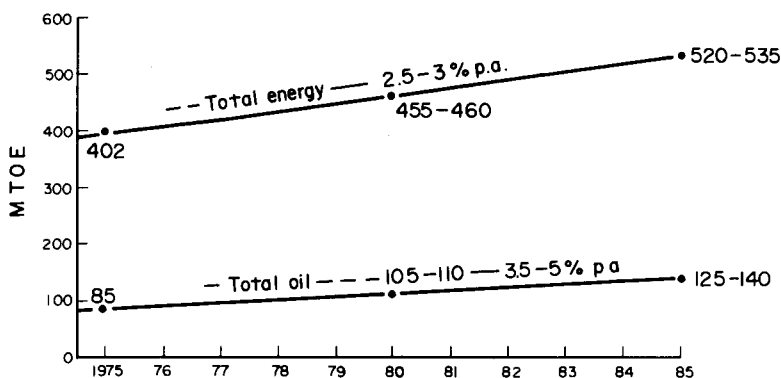


FIG. 5. The Six eastern Europe members of CMEA: 1985 energy projection (projected total energy and oil demand based on recent trends of lower growth).

Supply Options

Firstly, the USSR

Starting with oil production in 1980 at between 600 and 610 m.t., prospects for further increases in the next 5 years depend upon existing regions and existing production techniques almost totally. Offshore areas except those already established around the Caspian littoral and onshore regions east of the eastern part of the West Siberian plain remain for another day, after 1985. Tertiary methods of recovery are still at the research laboratory rather than with the production engineer in the field, and while progress towards field application must be expected, any broad application capable of significantly improving all-Union production in mature field areas like the Volga-Urals before 1985 is improbable. Deeper drilling in these mature areas, and operations in deeper waters in the Caspian and off Sakhalin, also takes years rather than months. Soviet capability down to about 5000 m is already established, and experience of the time and effort in going to greater depths has been ruefully recorded by the industry outside CMEA. The major fields of western Siberia, which enabled all-Union production to double in the past decade despite decline in the Volga-Urals since 1975, have now been brought to capacity production, and some further advance is needed to offset further decline in the Volga-Urals region. In the next 5 years this will largely depend not on one region of giant fields, but upon a series of developments of smaller fields in the west Siberian plain, the Komi peninsula in the extreme north-east of Europe, and upon what successes that lie in the Aspheron Sill under the sea between Baku and the east Caspian fields, remaining but minor discovery potential in the north Caucasus, Volga-Ural approaches, and Sakhalin. Replacing nearly 5 billion barrels of oil produced every year

without a repeat of the west Siberian successes of the late 1960s is going to be more difficult, especially as the annual pressure of demand has doubled since their discovery. If one assumes that another 2 m.b.d. of "new oil" was discovered or otherwise made available by 1985, about half of this would be offset by the existing rate of decline in mature producing regions, and the balance would be just about adequate to meet a 2% annual rise in USSR domestic demand without leaving any margin for exports. And this is perhaps too optimistic a view of Soviet prospects for some of the forecasters: perhaps the most pertinent point within the scope of this paper is that it is unlikely to be any better, and therefore the price, the effort in real terms however negotiated that other CMEA countries may have to expend to improve their prospects of increased supplies from the USSR, will have a depressing effect on the level of resources they can retain for internal purposes in their economies.

Secondly—Non-CMEA import prospects

World demand outside the CMEA and mainland China is running at or a little above 51 million barrels daily, which is about twice the rate at which we are finding and adding to our recoverable oil reserves. The recurrence of economic depression, partly as a result of the overheat in world oil prices in 1979—itself a reaction to oil supply pressures—unfortunately has a negative effect on the incentive to invest in alternative fuels. Economic measures concerned with the control of excess paper money seem more capable of weeding out surplus consumption than in creating new investment. The main oil-producing countries are equally averse to excess paper money, especially if oil depletion is a genuine concern. Options of higher supply in the next 5 years that were a real prospect in 1975 have now receded irreversibly with time over the horizon. Lack of adequate new oil discoveries, inadequate investment in other fuels, and increasing inertia or reluctance on the part of the few remaining balancing world oil producers with the physical capability to supply, have become a vicious circle, leaving us little the wiser after the oil disruptions of 1979 than we were after 1973.

Table 2 lists the current supply sources. There is little spare capacity. Looking ahead, Mexico may double her output, but she has trebled it in the past decade and still consumes half of total production internally. Any future surplus in this part of North America could be offset by declining USA output.

In the same way, rising internal demand in developing countries, including OPEC, will limit the net export effect of any new discoveries, and the main increases to world supply from the North Sea and Alaska are already built in by 1980. Future uncertainties about the allowable level of production in

existing areas could totally offset any reasonable expectations about net new exportable discoveries into the world trade system in the next 5 years. This is a polite way of suggesting that effective supplies may show little or no increase, and if it is positive, even a 2% p.a. rise in demand will require an additional 5 m.b.d. by 1985, the equivalent of another Iran at its former level of output.

Table 2
1980 NCW Production of Oil—Projected

Non-OPEC		Rounded to nearest half-million barrels per day	
USA		10.0	
Canada		1.5	
Mexico		2.0	
Other Western Hemisphere		1.5	
United Kingdom		2.0	
Norway		0.5	
Other W. Europe		0.5	
Africa		1.0	
South Asia		0.5	
SE Asia		0.5	
Middle East		0.5	
Australasia		0.5	
		21.0	21.0
OPEC			
Non-Middle East:	Venezuela & Ecuador	2.5	
	West Africa	2.5	
	North Africa	3.5	
	Indonesia	1.5	
		10.0	10.0
Middle East:	UAE	2.0	
	Qatar	0.5	
	Kuwait	1.5	
	Iran	2.5	leaving Middle
	Iraq	4.0	East producers to
	N. Zone	0.5	produce another
	Saudi Arabia	9.0	(balancing) 20.0
			To meet demand at 51.0

NB—Communist World net exports *CIRCA* 1.0.
Seasonal Fluctuation \pm 2.0 Around 51.0.

This raises the prospect that, with the foregoing comments on the USSR and with China reassessing her own internal requirements before exporting, the entire world may be about to experience the “oil-shed” the high point of daily world oil production within the next year or so, at somewhere between 65 and 70 m.b.d. of which 15 would be in Communist areas. In both

Communist and non-Communist parts of the world the sustainment of more than 2% annual growth in oil appears unlikely, about one-quarter of the pre-1973 experience.

The outlook for the Eastern European oil deficit countries achieving an annual increase in supplies above the 2% average is not totally impossible but (as with the prospects for extra supply from the USSR) the real cost to their economy will be unprecedented.

Demand Options

If oil supply is either inadequate or uneconomic there are two remaining options—to increase efficiency and thereby reduce import demand, and, secondly, to create new trade openings by exporting goods and services in order to acquire energy imports without incurring the burden of hard-currency payments.

As usual with CMEA economic appraisal there is an inadequate availability of data on sectoral energy use through time to enable an in-depth appraisal to be conclusive. Even if there were such an opportunity I for one would be mindful that the system does not operate solely through reactions to price stimuli, a concise reminder of which comes from Cameron Hudson's synopsis for his paper at this seminar. Another problem is the chicken-and-egg relationship between energy constraints and the much publicized slowdown in the growth of the working-age population—which comes first? The relationship between primary energy increases and increases in various economic indicators is confused not only by the lack of comprehensive GNP assessments or that national income statistics may not be adjusted for inflation (and whose inflation?) but also by the variation in using high or low factor fossil fuel equivalent in measuring electricity use relative to economic performance. The high factor, in the case of, for example, nuclear electricity, is the amount of oil, etc., saved by *not* having to power that generating station. This is three times as much oil saved as would be calculated on the low factor, which measures saving at the final point of consumption, because two-thirds of the power-station input is lost before final delivery in generation and transmission. The fact that electricity features so highly in the total energy mix in order to maximize indigenous solid fuels, often of large tonnage and low heat value, is partially responsible for the higher ratio of primary energy needed for each extra unit of economic advance than in OECD countries. In OECD the ratio is between 0.7 and 0.9 units of energy for each extra unit of GNP as compared with pre-1973 (when a one-to-one relationship was allowed to set in because energy was generally the cheaper marginal option than labour or capital). Estimates for CMEA are even now above rather than below unity, although the very high ratios sometimes

quoted appear to use high factor conversions to electricity even when fossil fuels are not involved. This would be perhaps the expected trend in a production-oriented economy.

Once again I have opted for the macro approach to get a perspective. By simply dividing total energy consumption by total population for 1978 a comparison between each of The Six and other industrialized nations emerges in tons of energy per head, and also for oil use per head.

The results are shown in Fig. 6. The DDR and Czechoslovakia with 5.5 and 5 tons per head come out as the most energy intensive. They are perhaps the most dependent upon lignite—electricity. Poland with even higher solid fuel generation of electricity comes out slightly better at the average for The Six at 4 tons per head, but using very much better quality coal. The “southern three”, who are very much more oil and gas orientated in their total energy use, come out at 3.5 to 3 tons per head. They would also expect to be favoured more by climate.

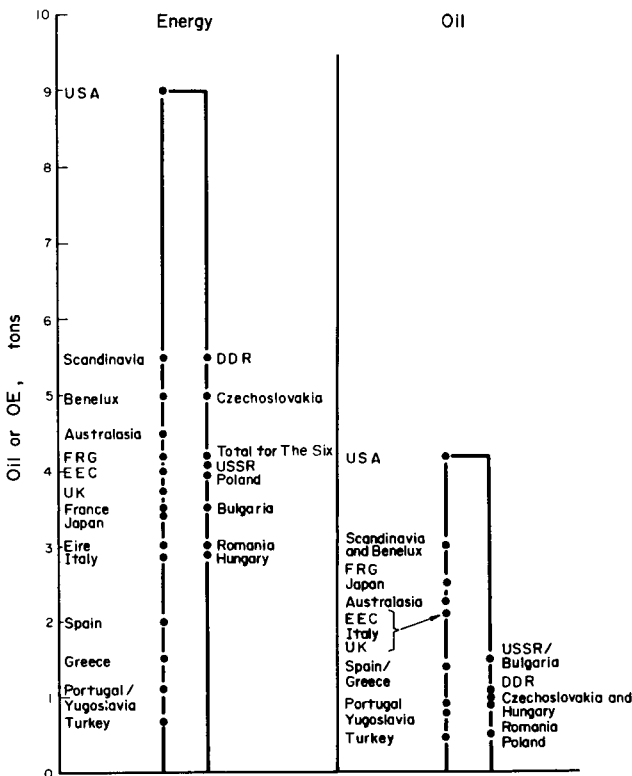


FIG. 6. Per capita consumption, 1978.

More striking is the contrast with other areas. The USSR comes out at about 4 tons per head, the same as the average for The Six. But this is as much as West Germany, the leading EEC economy, requires for a higher economic standard, and where there is no climatic advantage. Apart from the Benelux countries at 5 tons per head (which may be due in part to their enormous refining activity largely for export consumption of the end products) none of the EEC nations exceed 4 tons per head. Scandinavia is higher, but with a very high standard of living and climatic problems it still is no more energy intensive than the DDR. Japan produces its economy with less use per head than Bulgaria or the "northern three".

The oil comparison shows what must be one of the causes: the lower use of oil. None of the CMEA countries enjoys more than 1.5 tons per head, the majority about 1 ton of oil per head annually, whereas now the EEC and Japan use twice as much per head. Direct use of fossil fuels avoiding their intensive use in electricity (oil and gas to the door rather than lignite to the power station) cannot be isolated from other factors, but is clearly a powerful influence in the energy per head differences in CMEA and OECD.

I have to make a special acknowledgement at this stage to an article by F. L. Pryor in the UK *Economic Journal* last September (q.v.) which gave comparisons of GNP in the CMEA countries with that of the United States and West Germany by comparing various attempts to achieve this over 20 years and showing that a reasonable fit existed between the estimates.

Taking the article as a starting point I have taken the analysis one step further and compared the per head energy requirements of each CMEA country as a function of Pryor's GNP estimates and compared them with the United States. The result is that, at comparable GNP per capita, energy use emerges as follows:

Poland	10.1	USSR	8.7
Romania	9.7	DDR	8.6
Bulgaria	9.4	Czechoslovakia	8.0
United States	9.0	Hungary	7.0

Before the United States takes refuge in this camouflaging of its high energy use, I have to point out that the same adjustment for the Federal Republic Germany, Greece, Austria, and Yugoslavia, which were also covered in the article, produced figures between 4 and 5 tons per head in each case.

Since the DDR was credited with the highest GNP per capita in CMEA, the same adjustment was made using the DDR as datum, thus:

DDR	5.5 tons per head total energy use
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Czechoslovakia	5.2
Hungary	4.5
Bulgaria	6.0
Romania	6.2
Poland	7.2

These show a major change in ranking from the "northern three" and "southern three". Two of the southern three, the Balkan states, come out poorly despite climatic advantage and the higher mix of oil and gas. Since this is now an advantage Romania in particular is about to lose, it could be an indicator of which countries have to consider whether efficiency in use is their real issue.

Pryor notes that Bulgaria is at about the same GNP standard as Greece but uses twice as much energy per head, and that the DDR uses 50% more per head than the FRG if the former is adjusted for having 80% of the GNP standard of the Federal Republic of Germany.

The Polish problem is admitted to be largely connected with old plant and industrial equipment. Romania is also admitting to a much higher use of energy in industry than Western European countries use. Naturally, the two most energy intensive countries, Poland and Romania, are the only traditional energy exporters in the group, and a tightening of attitudes may now mean that there is more scope for them to improve their economic prospects through fuel economy than there is in the DDR and Czechoslovakia who have not had the fat to lose: they and Poland have used no oil in power generation so in this sector no oil savings are possible. Many of the fast-growing economic sectors such as chemicals, aviation and heavy and electrical engineering are hydrocarbon or energy intensive. Industrial sensitivity to oil use is critical to the whole issue of economic constraints.

There is also the public sector. The recent crisis has brought with it "save it" measures somewhat more draconian than those considered by the IEA members after the Iranian disturbances. These and ministerial warnings are appended: but they do not offer much scope to economies looking to *some* increase in consumer comforts as a means of increasing national income.

The recent fluctuations in the Polish proposal to enter a scheme for coal gasification/liquefaction with the Federal Republic of Germany underlines the different nature of the problem the Six are under compared with the USSR. The USSR exports energy to both Eastern and Western Europe and high energy prices favour its terms of trade. Eastern Europe cannot offer energy to Western Europe to acquire the technology it needs; the alternatives are compensation deals with the USSR (Orenburg, the gas project, the Khmel'nitski (Ukraine) Nuclear plant construction for future electricity supplies) where the Eastern Europeans are effectively competing for USSR projects with non-CMEA enterprises: or to develop a competitive role to

Western OECD nations in offering "intermediate" technical or manufacturing ability to developing countries who can offer energy in exchange. OPEC nations have for a long time had trade "umbrella" agreements with The Six but will developing countries with accessible coal but needing technical help—either with coal or other technology—deal with the Six, perhaps if the OECD nations do not show sufficient interest? Possibly the answer lies in standing aside for a moment from hard-currency criteria and considering two factors.

The first of these is the growing desire of developing countries including OPEC to remain independent in a shrinking world. The Six do represent one trade alternative for a developing nation to obtain technical aid without direct dealing with OECD hard-currency areas or the USSR. The second is whether triangular West European, East European, developing nation packages would also help to keep trade more international or multilateral in character and perhaps avoid all issues being dragged into one giant set of bilateral alternatives. This is not perhaps an attitude or a concept which would meet with general approval: but the pertinent issue is whether it is held by sufficient energy producers to open doors to new trade avenues. If it does not, the only real prospect for the Eastern European CMEA nations until the massive nuclear programme makes headway is to try to balance continual tightening of trade lines and conditions of supply with both USSR and OPEC by improvements in internal efficiency in use.

Appendix

Official Statements on Energy Problems

In addition to Soviet statements on the tightening oil supply and need for energy efficiency, the following comments/measures are witness to the changing scene:

Czechoslovakia

Economy must adapt to no oil growth Rude Pravo, 29 November 1979

Appeal for fuel conservation/efficiency Radio Prague, 8 March 1979

Leopold LER, Federal Minister of Finance

Economic growth harder in future due to rising raw material import costs 1st Sec. Husak in Plenary CCCP, *East-West Trade News*, 7 December 1977

After 1980, USSR oil imports to be held at 1980 level after 20% oil/gas rise in 1978/79 Strougal, BBC, 22 November 1979

DDR

- Solids to be main energy source to year 2000, then nuclear Heinz Ziergiebel, State Secretary for Energy in *Junge Welt*, Berlin, March 1979
- Warning of economic impact of rising cost of raw material imports Heinz Klopfer, State Secretary Planning Commission, *East-West Trade News*, 23 November 1977

Hungary

- Unconfirmed West German source reports ending of oil imports from Iran/Iraq *Financial Times*, 1 February 1979

Poland

- No rise in exports due to changed domestic needs *Financial Times*, 28 August 1979; also *World Coal*, 11 November 1979

Bulgaria

- Ban on official vehicles for private use from 31 August 1979 BBC, 6 July 1979
- Severe penalties for misuse including vehicle confiscation BBC, 6 July 1979
- 70% target saving on street lighting BBC, 6 July 1979
- Diesel lorries to replace petrol BBC, 12 July 1979
- Petrol prices doubled for second time in 2 years *Financial Times*, 15 June 1979
- Alternate weekend ban of use of cars *Financial Times*, 19 June 1979
- Segregated private car petrol pumps—official “dye” BBC/SWB, 2 October 1979

Czechoslovakia

- Speed limits: cars 110 k.p.h. on motorways etc. EIU/R 4Q 79
- Energy savings: use of long-distance gas pipeline friction heat in Moravia glass house crops EIU/R 4Q 79
- thirty refuse burning plants to be built EIU/R 4Q 79

solar and geothermal EIU/R 4Q 79
 energy to provide 3% of
 total by 2000

Daylight saving—summertime introduced in 1979 with later start in rest of year for schools, etc. Radio Prague, 10 February 1979

50% price increase in petrol to equivalent \$3 gallon *Daily Telegraph*, 23 January 1979

DDR

All industrial energy prices up by 30% *Financial Times*, 28 June 1979

All *new* buildings to have thermostats

All enterprises exceeding "normal" use of energy to pay tenfold excess price *Voice of GDR*, 17 October 1979

Hungary

Agriculture, although only 6% of total energy use, takes 30% of liquid fuels. BBC, 13 September 1979

Geothermal and biogas to be encouraged: future greenhouses to be geothermal only

Oil-fired power station construction to cease *Pet. Economist*, February 1978

Price increases: electricity 51%; petrol 25% January, 20% June; 75% of homes to be on piped or bottled gas by 1980. *Financial Times* 20 July 1979

Poland

1976–80 15 million (coal) tons saving through more efficient use, elimination of old boilers *World Coal*, November 1978

Direct use of coal falling from 66% 1965 to under 40%. 40% of homes on central heating, but twice this level in Warsaw, Lodz *World Coal*, November 1978

Gasoline sales increasing 50% faster than increase in car population (up 50% 1975–78) *World Coal*, November 1978

Obsolete industrial plant main cause of energy waste—52% of total energy use is in industry *BBC World Service*, 24 April 1979

Poor insulation leads to losses 30% above standard (design). Building material substitutes for bricks twice as bad in insulating quality as equivalent climate areas in Western Europe. Three mineral wool factories to be created in next Plan period. Insulation only 50% of Swedish practice

Romania

Compulsory reduction of 30% in public lighting—curbs on vehicle use—maximum 18°C for building temperature—industry to cut 21% energy use by 1985 *Pet. Economist*, September 1979

Three times as much energy used relative to each \$1000 GNP as in Western Europe *Financial Times*, 26 July 1979

Bibliography

Among a wide range of journals, including those cited in the Appendix, particular mention should be made of the various BBC services.

Among individuals, the work of F. L. Pryor on economic matters has already been attributed in the text. On energy trends particular thanks are due to my colleague Peter J. Bassett for his researches.

The Role of Banking and Finance in East European Reforms

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I. Introduction

During the decade of the 1960s, the most active period of economic reform in Eastern Europe, many economists recognized that any significant reform must involve the partial monetarization of the centrally planned economy. Monetarization and the decentralization of decision-making had to be coordinated, and the monetary function in the system would have to be broadened from strictly accounting and control. Many of the difficulties experienced during the 1970s stemmed from the failure of political leaders and economic officials to understand this dimension of the reform process. In some cases, reforms in managerial incentives were ineffective since the monetary medium of commerce was restricted. In other cases, too much was expected from extensive financial reform without a parallel decentralization of economic authority over resources.

For the purpose of analysis, one may divide the role of banking in Eastern Europe into four broad areas of responsibility: (1) investment decisions; (2) trade and credit relations in the enterprise sector; (3) international transactions and finance; and (4) banking relations with the household sector. During the past decade, there was only limited progress toward monetarization in the first two areas of investment and enterprise banking. It is precisely in those areas where economic reform most directly challenges the established authority structure of planning and ministerial power. There have been more significant changes in the areas of international and household banking during the past decade, with these changes in each area being associated with the rapid accumulation of financial obligations by the State.

During the 1980s, the pace of economic reform in Eastern Europe is expected to be more rapid than in the 1970s. Such reforms may be less dramatic than those of the 1960s but will be better coordinated with further monetarization of the economy. As the more industrialized CMEA economies move away from the norm of full-capacity utilization, greater

concern will be given to transaction flexibility, inventory management, and demand responsiveness. This requires an expanded role for banking and finance within the enterprise sector, a role which may even spill over into investment decisions. At the same time, there are certain to be further developments in the areas of international and household banking, with East European bankers building upon the expertise accumulated during the past decade.

II. Barriers to Monetization in the State Sector of Centrally Planned Economies: Enterprise Credit

To a significant degree, the limited development of monetary and credit institutions in centrally-planned economies can be attributed to restrictions placed upon property rights in such economies.¹ Under market capitalism, the basis for monetary issue has long shifted from "real bills," i.e., private claim on real commodities, to fiat money and government debt. However, the demand for money in those economies and the associated development of financial institutions is based rather on the existing exchange of commodities and resources for money, now and in the future. Under State socialism with central planning, most commodities and nearly all capital goods cannot be obtained with money alone. Narrow restraints on the utilization of real assets are promoted by planners' ideology and enforced by administrative control. Consequently, the reasons for holding money balances within the State sector are quite different from traditional enterprise motives under capitalism.

There continues to be a doctrinal problem with the "creation" of money in a socialist economy and the appropriate relationship of credit to economic activity. In a perfectly-planned economy, socialist credit relations would only be necessary to manage seasonal patterns and stochastic variations. A simple relationship of enterprises to banks would serve those limited needs as well as contribute to the State's interest in accounting and control. However, in the operation of actual socialist economies the existence of exogenous disturbances, planning errors, and enterprise mismanagement gives rise to enterprise credit demands on suppliers and on the central bank. Automatic extension of bank credit is then necessary to validate the cumulation of past distortions in the real economy. Otherwise, new disturbances would be propagated within the supply system, and this would further impair the fulfillment of plans. It is typical therefore for the growth of credit to exceed the growth of economic activity in most periods of socialist expansion; a frequent feature of financial reform is the consolation of inter-enterprise trade credit and the "elimination" of certain enterprise liabilities to banks.

During the 1960s, banks in the Soviet Union and Eastern Europe shifted

away from "special purpose" lending toward "loans on turnover". Bank credit as well as enterprise "own funds" were extended to enterprises on the basis of norms, differentiated by branch seasonality and turnover rates. However, the lack of credit markets among enterprises means that "excess" liquidity cannot be legally sold to enterprises under financial pressure. Instead, State banks intervene to selectively "freeze" excess liquidity (often by altering the norms) or to extend supplemental credits to deficit enterprises at "penalty" rates.

The concern with enterprise liquidity became much more significant after the economic reforms in Eastern Europe during the 1960s. Most of these reforms introduced some mechanism to link bank credit with enterprise own resources and with enterprise profitability. The various reforms were often complex but the essential idea is not. Increases in bank credit relative to revenue would boost costs and reduce profitability; this effect could also be increased by assessing penalty rates for unprofitable enterprises. Profitability became a more important objective with the reform since it had a positive impact on managerial and worker incomes and on enterprise own working capital. In most cases, the incentive effects of profitability were small because of the concern of ministerial superiors with output targets, the distorting influence of fixed prices, and exogenous disturbances to enterprises from the system of planning and supply.

In an actual socialist economy, the uncertainty of input supplies establishes a large enterprise demand for liquidity. Since money in the form of bank credit does not provide potential command over resources, enterprises seek liquidity through the holding of real resources instead (labor, equipment, and input inventories). In this case, money is created to finance the holding of real resources which enterprises have already acquired rather than to provide enterprises with financial command over resources which may or may not be exercised.

It is remarkable, as Zwass points out, that most ambitious banking reforms after the mid-1960s took place in the GDR and Bulgaria, economies where there was little decentralization of production authority to enterprises.² In the GDR, an Industry and Trade Bank was established subordinate to the State Bank to regulate enterprise credit and investment financing through fourteen regional boards and local branches. In Bulgaria, commercial banks were given the task of handling enterprise credit and clearing transactions subject to indirect control by the State Bank (through reserve requirements and differential interest rate policy). When the operation of the financial system came into conflict with the authority of the planners, credit policy became accommodating rather than a guiding instrument. The contradiction was resolved in both the GDR and Bulgaria by a return to the consolidated State Bank subordinate to the pressures of the plan.

III. The Role of Banks in the Financing of Capital Investment

By the early 1960s, many East European economists recognized that the financing of capital investment via State budgetary grants was contributing to a decline in capital effectiveness and the long delays in project construction. The standard diagnosis was that incentive systems were defective for both construction organizations and productive enterprises, and that these problems would be at least partially resolved by financing investment through bank credit. At the same time, strong interests within the planning hierarchy and political leadership sought to retain central control over both the aggregate level of capital investment and the selection of major investment projects. During the 1960s and 1970s, the importance of bank credit and enterprise funds in investment financing tended to rise; however, this trend did not seriously reduce the pervasive influence of central planners and ministerial authorities over the allocation of capital investment. As in the case of short-term credit for enterprises, banking relationships became more complex but credit continued to serve more as the ratification of allocation decisions already made on the basis of other criteria.

One of the most significant criticisms of theoretical socialism was the recognition that a centralization of property rights over capital goods by the State could have a serious impact on the efficiency of investment allocation and the effective utilization of capital. When capital goods are "costless" to production units faced with strong output demand, investment demand will be excessive. The distortion will bias project information provided by enterprises for central budgetary support. Establishing charges for capital allocations will neither restrain demand nor improve project selection, since capital costs and losses in capital efficiency become embedded in the structure of prices and budget subsidies. Construction organizations have few incentives to improve capital productivity, complete investment projects on time and within budget, or take a longer view of capital durability. Introducing bank financing and control into a void of enterprise property rights will clearly not solve socialism's problems in this area.

The evolution of the banking role in investment finance is particularly instructive in the case of Poland.³ During the mid-1950s, bank credit was first introduced to finance "quick-yield investment" and then to finance "decentralized investments" by longer term credit (usually five years). This role of banks remained minor until the establishment of greater enterprise discretion over capital spending in 1958. There was a surge in decentralized investment in 1959 as enterprises sought to start projects immediately in order to establish claims on future resources; aggregate investment grew 23% during that year with intense pressure on construction capacity and the supply of building materials. By 1960, direct controls were imposed on

“decentralized investments” and the use of bank credit in this area remained limited until after 1965. Thereafter, bank credit became the major source of Polish investment finance but the causal determinant of the level and composition of investment remained the decisions of the planning authorities. When the surge in capital investment took place in the early 1970s, bank credit rose quickly to cover the delays in project completion and cost overruns. From 1970 to 1977, the volume of investment credits rose by a factor of 5½ while the level of investment activity grew only 2½ times and the volume of physical capital grew only 1½ times.⁴ One cannot fault the Polish banking system for the excessive investment surge and the breakdown in financial discipline; the banks were directed to finance projects approved by the planners and to borrow abroad to pay for purchases of Western equipment and technology.⁵

In most countries of Eastern Europe, there was a significant shift toward the financing of capital investment from bank credit and enterprise own funds after the mid-1960s. In Czechoslovakia, Poland, and Hungary the investment bank was eventually merged with the State bank to better coordinate credit policy for State enterprises. Enterprise self-financing of investment projects became quite significant in Hungary and the GDR by the mid-1970s, but centralized decisions continued to dominate investment activity in the GDR throughout the decade.⁶ The Hungarian reform of 1968 provided enterprises with considerable financial liquidity, resources which financed a surge of investment spending in 1970–71, during 1974 and again in 1977–78. The National Bank of Hungary was not able to exercise financial restraint on investment spending, and as in Poland, was forced to borrow more heavily abroad to pay for imports of machinery and building materials. As Portes has noted, the new economic mechanism failed to force ministries and enterprises to bear the costs of excess spending, poor project selection, and delays in completing construction.⁷

It is clearer now that for socialist bank credit to serve in the regulation and allocation of capital investment several prerequisites are necessary. First, the number of investment projects selected by central planners and financed by the State budget should be a smaller share of total investment than is usually the case in Eastern Europe. Second, the pace of construction activity must be brought down within the capacity of the construction sector and the building materials industry. Third, some expansion of property rights over profits and working capital must take place at the enterprise or association level in order to establish better incentives for efficient project design and efficient use of completed capital goods. Fourth, domestic producer prices must adjust more rapidly to reflect external prices and domestic capacity constraints with projections of those prices made available to both central and enterprise authorities. Since direct import competition is unlikely to be permitted, the

adjustment of prices will continue to be a centralized function but can be made more mechanical than discretionary. And fifth, the banking system itself must be given incentives to allocate credit more efficiently among branches and enterprises, a reform which may require some decentralization of banking itself and negotiated interest rates.

IV. East European Banks and the Household Sector

Retail banking in Eastern Europe expanded dramatically during the 1970s as there was a sharp increase in household financial assets in the form of currency and time deposits. In the centrally-planned economy, the State Bank and the Ministry of Finance must devote considerable attention to the aggregate balance of household income, financial assets, and consumer expenditure. This macroeconomic balance is of fundamental importance for the preservation of both stable retail prices and worker incentives. The conventional wisdom among Western economists has been that in Eastern Europe there exists a persistent state of disequilibrium in the consumer market with shortages of some goods and excess supplies of other goods, resulting in an accumulation of household money balances. Portes and Winter have attempted to resolve this issue by estimating a disequilibrium model of household demand with a conclusion "rejecting the hypothesis of sustained repressed inflation in the market for consumption goods and services since the mid-1950s in our four CPEs (Czechoslovakia, GDR, Hungary, and Poland)."⁸

However the issue of "repressed inflation" is eventually resolved by further research, it is clear that household banking has been a major growth sector in Eastern Europe during the 1970s. The demand for cash balances by East European households is relatively high for several reasons: (1) provisions for transactions by check or charge remain quite limited; (2) consumers must be prepared to conclude transactions in cash when important commodities are available, whether through official or nonofficial channels; and (3) inflationary expectations are low given the relative stability of retail prices. The demand for time deposits with East European banks has generally been associated with longrun saving for the purchase of apartments, automobiles, and other large-ticket items. This form of household saving can be regularized since established queues exist for such durables, and payroll deductions can be arranged to meet the transaction price when one advances to the head of the queue. Consumer credit may be available to households reaching the head of the queue before the accumulation of the transaction price; otherwise, households typically borrow from other households directly in order not to forego consumption.

Retail markets for consumer goods in these economies are generally far

from perfect. Access to the most desired goods is often based upon political or occupational status rather than the capacity to pay. Institutions have also evolved through which highly-desired goods may be purchased with Western convertible currencies. Besides the State retail trade system, there exist both legal and illegal unregulated markets for the purchase of food, second-hand commodities, and services.

The creation of household money balances in a centrally-planned economy is a more significant extension of property rights than that associated with enterprise money balances. As a financial instrument that goes beyond the State sector of ownership, the acceptance of money by East European households depends upon the public expectation that such claims on present and future commodities will not depreciate at an unreasonable or unanticipated rate. It is this fulfillment of expectations as well as anonymity that explains the remarkable degree of monetarization in the "second-economy" of private transactions. The State itself has strong interests in the maintenance of public expectations of the value of money, since it exchanges money for labor services. The rise in household money balances sustains not only retail transactions and desired savings, but also the "second economy" where the price level is higher and the growth in volume has been more rapid in the 1970s.

The circulation of foreign currencies in Eastern Europe poses both problems and opportunities for the monetary authorities. First, the usage of both domestic and foreign currencies in second-economy transactions establishes an internal exchange rate which conflicts with both the level and stability of the official exchange rate. Second, foreign currency balances provide an alternative form of savings for domestic households and this represents a further restraint on the financial authorities. The most innovative response to this situation has taken place in Poland during the 1970s. The large influx of Western businessmen and the flow of remittances to households generated substantial private balances of hard currency by 1976-1977. Special retail stores were introduced to sell imported goods and quality domestic goods ("internal export") to households for hard currency. In 1970, the banking system introduced hard currency accounts in order to utilize household savings for external finance. These accounts paid higher rates of interest than did domestic zloty accounts but the rates were usually lower than world market rates. One serious problem during 1977-78 was the failure of the Polish banks to protect themselves against exchange-rate risks by varying the interest rates for different currencies. Polish households have also acquired East European currencies judged more valuable than the zloty, particularly the GDR's Ostmark and the Hungarian forint. An experiment in limited convertibility on the Polish-GDR border in 1972 had to be curtailed because of the large demand generated for Ostmarks.

V. Developments in Foreign Trade and External Debt

In certain respects, the rapid development of international banking in Eastern Europe has parallels with the expansion of household financial assets during the 1960s and 1970s. Whenever financial flows cross over the boundary of State ownership, the recognition of property rights in financial assets becomes more explicit. Furthermore, the creation of financial assets is only possible given the stability of expectations as expressed through legal contract and banking procedure. There was also an unprecedented increase in the volume of foreign trade and in the net obligations of East European States to both domestic households and external creditors. The State borrowed from households and the West to finance industrial capacity which would eventually repay those debts through a greater volume of better quality commodities—exports to Western markets and sales on the domestic consumer market.

Unlike the State's obligations to domestic households, however, the growth of external debt was denominated in Western currencies. In this process, the domestic currencies of Eastern Europe and the CMEA "transferable rouble" played only very limited roles. Actually, the external value of CMEA monies is even more restricted than the internal value of enterprise credit in commanding goods and resources. Even the establishment of multilateral clearing arrangements through the International Bank for Economic Cooperation (IBEC) did not result in the emergence of CMEA financial assets denominated in the accounting unit of the transferable rouble. The inconvertibility of the domestic CMEA currencies meant that zloty earned by Hungarian enterprises were even less powerful than zloty earned by Polish enterprises, and neither could be used to buy Polish coal or Polish ham. When a country realizes a surplus in its CMEA accounts, that usually reflects either unanticipated delays in import deliveries or a credit in the form of real commodities. Multilateral trade (as opposed to multilateral clearing) has never represented more than a very small share of CMEA trade, and nearly all of such multilateral trade is actually cleared in convertible currencies.⁹

The growing significance of Western currency in CMEA monetary relations indicates how fundamentally money is related to markets and property rights. Because Western currencies are convertible for commodities on world markets, they can be used directly in the trade and credit relationships among centrally-planned economies. Those actions of IBEC during the 1970s which could be regarded as true credit operations, usually shortrun in character, have been primarily conducted in convertible currencies. Part of IBEC's capital contributed by member countries was in convertible currency and additional funds were raised by IBEC on Western capital markets.¹⁰ The importance of Western money was demonstrated even

more clearly in the financing of the Orenburg natural gas pipeline, a joint project of the CMEA to bring Siberian natural gas to Eastern and Western Europe. Over \$2 billion was raised in the West by the International Investment Bank (IIB) to cover imports of pipe, compressor stations, and other equipment.¹¹ The contribution of East European countries to the project generally took the form of labor, materials, and construction services—allocations of real resources by central planners that would not have responded to rouble incentives. A growing share of CMEA trade is thought to take place outside the bilateral agreements, transactions for fuels and food at negotiated prices and paid for in hard currency.

During the 1970s there were significant changes in the organizational form of East European foreign trade, with large enterprises or associations exercising greater authority over such transactions. Even where foreign trade organizations retained full authority, their operational capability including financial expertise was upgraded. In many cases, this tendency plus the availability of Western supplier credits actually led to a decline in banking authority over the use of Western credit during the mid-1970s. With enterprises not directly responsible for the repayment of supplier credits, there was an incentive to oversubscribe as in the case of investment funds generally. The reestablishment of bank authority took place in Poland during 1977–78 in order to correct an unsustainable surge in imports from the West, and this process also occurred in the USSR and Hungary. By the end of the decade, the foreign trade bank had gained more influence in the allocation of hard currency but the essential problem of credit criteria has not been resolved. Thus, the directions of economic reform during the 1970s may have eroded the international role of East European banks for several years but the rise in external indebtedness has begun to reverse that process.

It is clear that East European banks have developed most rapidly as credit institutions in the area of foreign trade and international finance. The foreign trade banks or the international departments of the State banks had to acquire the technology and expertise to deal with the clearing volume of foreign trade, the legal and financial technicalities of various credit instruments, and the management of foreign exchange and other portfolio risks. Because of the challenge and opportunities, this area of East European banking attracted the most skilled personnel and the other quality resources necessary to upgrade operational capacity. East European bankers now have considerable experience in many world markets—syndicated lending, the interbank money markets, commodity exchanges, foreign currency trading, and even real estate. Errors in judgement have clearly been made in particular cases, but that is the experience of all market participants. However, there has been remarkable growth in the institutional strengths of East European banks in this area.

VI. The Prospects for Further Developments in East European Banking during the 1980s

Throughout our review of the past two decades in East European banking, we have stressed the close relationship of monetarization to decentralization, markets, and property rights. This relationship has been evident in the experience of East European nations considered in this paper as well as in the emergence of the Yugoslav banking system since the 1950s.¹² Consequently, we shall first consider the prospects for East European economic reform more generally, and then examine the capability of East European banks to contribute positively to the reform process.

It might first appear that the 1980s would present an environment particularly harsh for East European reforms. The adverse movement in the terms of trade for the CMEA Six as well as the unprecedented rise in State debts to households and the West impose severe constraints on the political leadership. Significant investment programs for energy and energy conservation are necessary, a rising volume of exports is required to pay for imports and service debt, and the household sector may hold productivity hostage if improvements are not made in dietary standards, housing, and the quality of consumer goods. In short, the limited output growth expected and the vocal claims on incremental output provide the political leadership with few reserves to finance the political process of economic reform.¹³

Despite this gloomy prospect, we expect the pace of economic reform in Eastern Europe to increase significantly during the early 1980s. Such reform will be characterized by the decentralization of production authority and some investment authority to large enterprises (combines, associations, firms, etc.) and the extension of markets and monetary instruments to govern their interaction domestically and abroad. This decade of reforms will probably be less dramatic and systematic than the 1960s, but the incremental gains should be less easily reversed than before. Under the conditions of austerity, there exists no other feasible strategy for the political leadership in Eastern Europe given the primary tasks faced. The principle economic tasks of the 1980s will be in raising the productivity of labor and boosting exports rather than in boosting output volume and introducing new industries. The productivity task will emphasize the return on energy and material inputs, requiring process innovation and the application of Western technologies already acquired. The sales task, which involves primarily the delivery of quality products, has become critical because of the need to service Western debt, to pay for imports of Soviet energy and materials, and to meet domestic demands.

As the more industrialised CMEA economies move away from gross output incentives and full capacity utilization, greater emphasis at the enterprise level will be given to transactional flexibility, inventory

management, and responsiveness to demand. Developments in those directions require an expanded role for banking and finance. For this decentralization to be successful, the financial reforms must empower the monetary assets of enterprises without creating the excess liquidity which plagued the Hungarian experiment. Domestic inflation within the State sector will probably become open in the 1980s to accommodate rising import prices although the exchange rate may be used more effectively to reduce the domestic propagation of world inflation.¹⁴ Certainly, interest rates and repayment conditions must become more realistic for bank credit to serve goals of macroeconomic balance and efficiency.

The expanded role for banking within the enterprise sector may even spill over into investment decisions. Here, however, one must acknowledge the formidable barriers to property rights which are likely to persist during the decade. Centralization of property rights over capital goods and "ministerial commandism" will continue to limit the decentralization of investment choice and consequently the role of investment banking. Such problems continued to arise in the Yugoslav economy even after several decades of development in the property rights of enterprises, workers and banks. There are serious limitations, moreover, in the capacity of the banks in Eastern Europe to make efficient decisions in the allocation of investment funds. Major reforms in this area would also require significant changes in the construction sector, shifting incentives, and organization toward market patterns observed in international construction.¹⁵

In the household sector, the limitations on computer capacity and technical expertise will preclude any significant step toward modern retail banking—checking accounts and credit cards. Given the enlarged domain of the second economy and the need to keep financial wealth anonymous, households will continue to exhibit strong preferences for cash balances anyway. There are, however, certain areas where East European banks could expand their services to households, particularly in the extension of consumer credit and the issuance of "certified checks" for major purchases and travel.

In the area of international trade and finance, the development of East European banking will depend upon the extent of authority delegated to large enterprises. Significant changes in that area would enlarge the banking services demanded, particularly in the area of trade financing. Under the conditions of external indebtedness at the beginning of the decade, the domestic allocation of hard currency will be of crucial importance. If planners control that allocation at the center, the prospects for efficiency in these economies will not improve. The alternative is to make enterprises pay the scarcity price for hard currency and be responsible for timely repayment. Enterprises earning hard currency on the world market should also receive discretion over the use of some share of those revenues, either directly or

relending it domestically. This development would represent a major challenge for the banks.

Within the CMEA itself, we do not expect a rapid change toward multilateral trade. For Eastern Europe, the reality of the 1980s is the central role of bilateral patterns of trade and integration with the USSR. An East European economy begins with the bilateral relationship with the USSR and then must meet its compensation commitments and other debt servicing export to the West. Beyond that, we expect a shift toward greater multilateralism in trade within Eastern Europe, particularly among the most industrialized four. Such trade will exhibit more of the characteristics of the trade relations between Yugoslavia and Hungary observed in the late 1970s, i.e., negotiated between enterprises with clearing in convertible currency.

Appendix

The Economic Outlook for Eastern Europe in 1980-81

A recovery in East European growth is likely after the sharp slowdown experienced during 1979. Last year, the growth of national income for the six East European members of the CMEA (Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, and Romania) was only 2%, down sharply from 4½% growth in 1978 and 6% in 1976 and 1977. For 1980-81 the annual growth of national income should average 3½% to 4% given the mild winter and the recovery in agriculture expected this year. The growth setback of last year did not result in a widening of East Europe's trade deficit in convertible currencies, but it did limit the improvement which had been expected for Poland and other countries. This trade deficit should continue to decline in 1980 and is projected to average \$4.5 billion in 1980-81.

Domestic Growth and Inflation During 1979

Under the impact of a severe winter and a poor harvest, domestic growth rates in 1979 declined nearly everywhere in Eastern Europe. In Poland, national income actually fell 2% and harsh criticism of economic management forced the resignation of Prime Minister Jaroszewicz at the Party Congress last February. Growth rates also declined sharply in Czechoslovakia and Hungary.

The severity of the winter across northeastern Europe reduced industrial production, disrupted energy and transport systems, and delayed construction

activity. In the first half of 1979, Poland's industrial production rose only 0.6% above first-half 1978 and industrial growth was also depressed in Czechoslovakia and the GDR. For the full year, the growth of industrial output in Eastern Europe was only 4.7% after 6% in 1978. Harvest conditions also turned adverse with high winterkill, heavy spring rains and flooding which delayed planting, and drought in the early summer which reduced crop yields. Net agricultural output for the East European Six was stagnant in 1979 after 3% annual growth in 1977-78; agricultural output declined 3.3% in Czechoslovakia and 1.4% in Poland.

While shortrun factors were dominant last year, longrun factors are leading to an economic slowdown in Eastern Europe. These include demographic factors, lower supplies of energy and raw materials at higher cost, and a balance of payments constraint on imports from the West. There has been a shift toward austerity in government policy, beginning in Poland during 1977 and spreading elsewhere through Eastern Europe by the end of 1978. This policy shift and difficulties in winter construction last year resulted in only slow growth in capital investment. Capital investment actually declined 8.2% in Poland and rose by 3% or less in Czechoslovakia, Hungary and the GDR.

During 1979 there were sharp increases in consumer prices in most countries of Eastern Europe. In the GDR, where a 30th Anniversary was being celebrated, consumer prices were not boosted until January 1980. Hungary and Poland now report estimates of the cost of living, and the official data for 1979 indicate 9% inflation in Hungary (after a 4½% rate in 1978) and 6.7% inflation in Poland (after 8½% in 1978). Energy prices have been raised sharply for households and there has finally begun a move toward higher food prices in order to reduce the burden of large government subsidies.

The Outlook for Growth in 1980-81

The expected rebound in economic growth will be concentrated in the northern countries of Eastern Europe, while growth rates will continue to slowly decline in Bulgaria and Romania. An agricultural recovery to 3½% growth is projected in 1980, with 1½% growth regarded as the medium-term average for the region. The rebound in industrial growth will be less, up to only 5% in 1980 with lower average growth rates of 4% anticipated during the next five years. The completion of large investment projects at the end of the current Five-Year Plan should also stimulate domestic growth in 1980-81.

In the next few years, East European investment policy will concentrate on energy production—coal and nuclear power—and the efficiency of energy

and materials utilization. The latter objective will probably be the most significant for the more industrialized nations and will involve a priority in the allocation of R & D resources and a shift in domestic relative prices to encourage greater efficiency by enterprises. The increase in Hungarian industrial prices in 1980 and the establishment of a mechanism to link domestic prices to import prices represent a significant reform, and similar, if less dramatic, policies have already begun in the GDR and Czechoslovakia.

Developments in Foreign Trade

East Europe's trade deficit in convertible currency reached a peak of \$6 billion in 1976 and has been slowly declining with a resurgence in West European import demand and policies of import restraint in East Europe. During 1979, preliminary estimates indicate significant reductions in the trade deficits of Hungary, Poland, and Bulgaria. Poland's performance would have been even stronger had export earnings not been lost in the severe winter and had grain import requirements been less. Offsetting those gains was a sharp deterioration in Romania's balance of payments, with the 1979 trade deficit reaching a record \$1 billion or more. Romania's problems were apparently due to poor export performance in Western markets and the sharp increase in payments for imported crude oil.

The gains in East Europe's trade position were most dramatic with the Federal Republic of Germany. Poland actually achieved a small surplus of 12 million DM in its German trade, and the GDR reduced its deficit in inner-German trade to only 246 million DM, the lowest level since 1971.

The trade deficit is projected to improve to around \$4.5 billion in 1980 based on strong West European demand, higher world market prices, and a rebound in East European grain production. Further improvement beyond 1980 appears unlikely given the slump in world trade expected by late 1980 and continuing during 1981. Austerity programs to curb investment and machinery imports are likely to continue in Poland and Hungary and to begin soon in Romania under the restraint of external credit conditions. The most rapidly growing markets for Western exports will be in Czechoslovakia and the GDR. Demand will be particularly strong for equipment and technology which can conserve energy and materials utilized in production.

The Flow of Western Credit to Eastern Europe

The net flow of credit from Western banks to Eastern Europe was \$4.4 billion in the first nine months of 1979 compared with \$7 billion during all of 1978. Furthermore, there has been a sharp decline in the volume of

syndicated loans to Eastern Europe during the fourth quarter of 1979 and the beginning of 1980. As borrowing conditions deteriorated in the eurocurrency markets, East European banks chose to draw down reserves held in Western banks rather than borrow new funds. This tightening in credit market conditions had been anticipated by many financial specialists and is due primarily to the shift in national current account positions after the sharp increase in world oil prices during 1979.

For East European borrowers, the Afghan crisis probably accelerated the movement toward less favorable borrowing terms. As the US-Soviet relationship deteriorated, uncertainty with regard to US policy toward Eastern Europe tended to raise the risk as perceived by the management of many banks and corporations. It is certain that East European borrowers will face higher interest rates levels, higher spreads and shorter maturities during 1980 and early 1981. At the same time, continued discipline in the balance of payments and the relative strength of the US dollar should reduce the net credit requirements of Eastern Europe. Credit conditions will improve most quickly for those countries demonstrating the capacity to respond to the new relative prices and new export opportunities of the 1980s.

Table 1
Eastern Europe: Growth of Industrial Production
(Units: %)

	1975	1976	1977	1978	1979*	1980 ^F	1981 ^F
Bulgaria	10.7	5.8	6.8	7.0	6.6	6.0	5.5
Czechoslovakia	7.0	5.5	5.8	4.9	3.7	4.2	4.0
GDR	6.4	5.9	4.8	4.8	5.3	4.5	4.2
Hungary	4.6	4.6	6.6	5.2	2.8	3.5	2.5
Poland	10.9	10.7	8.6	5.8	2.8	4.0	4.0
Romania	12.2	11.4	12.5	9.0	8.0	8.5	6.5
East European Six	8.8	7.9	7.6	6.0	4.7	5.1	4.5

Source: Official CMEA Statistics, 1975-1979; weights used to aggregate country data are Western estimates of industrial production.

* = preliminary ^F = forecast.

Table 2
Eastern Europe: Growth of Net Agricultural Production
 (Units: %)

	1975	1976	1977	1978	1979*	1980 ^F	1981 ^F
Bulgaria	7.4	3.4	-6.3	4.3	2.5	3.5	2.5
Czechoslovakia	-1.0	-2.7	7.9	2.0	-3.3	5.0	1.5
GDR	-2.6	-10.1	11.8	1.7	2.0	2.0	2.0
Hungary	3.7	-2.7	10.3	1.5	0.0	1.5	1.5
Poland	-2.1	-0.7	0.8	4.2	-1.4	4.5	1.0
Romania	3.0	17.2	-1.3	2.4	2.5	3.0	2.0
East European Six	0.5	1.2	3.1	2.9	0.2	3.4	1.6

Source: Official CMEA Statistics; weights used to aggregate country data are Western estimates of agricultural production.

* = preliminary ^F = forecast.

Table 3
Eastern Europe: Convertible Currency Trade Deficits
 (Units: \$ millions)

	1975	1976	1977	1978	1979*	1980 ^F	1981 ^F
Bulgaria	-642	-473	-384	-422	-300	-300	-350
Czechoslovakia	-354	-582	-586	-425	-500	-500	-600
GDR	-1075	-1588	-1480	-1098	-1250	-1350	-1500
Hungary	-295	-177	-362	-833	-500	-500	-600
Poland	-2673	-2934	-2175	-1844	-1600	-1000	-700
Romania	-549	-300	-450	-700	-1000	-850	-750
East European Six	-5588	-6054	-5437	-5322	-5150	-4500	-4500

Source: Official CMEA Foreign Trade Statistics 1975-1978. Convertible currency trade balances for Czechoslovakia, the GDR and Poland are based on total non-socialist trade. For Hungary, the official balance in convertible currency is used although this includes some trade with other CMEA countries cleared in convertible currency. For Bulgaria and Romania, trade with only the industrialized West is used.

* = preliminary estimates ^F = forecast.

Notes

1. An excellent introduction to the subject is provided in Adam Zwass, *Money, Banking, & Credit in the Soviet Union & Eastern Europe*, White Plains, N.Y., 1979, Chapter 1.
2. *Ibid.*, pp. 94–96.
3. This summary is based primarily on T. M. Podolski, *Socialist Banking and Monetary Control: The Experience of Poland*, Cambridge University Press, 1973.
4. *Rocznik statystyczny 1979*, Warsaw, 1979.
5. Z. N. Fallenbuchl, The Polish economy in the 1970's, in US Congress, *East European Economies Post-Helsinki*, p. 851, Washington, 1977.
6. Zwass, *op. cit.*, pp. 133–138.
7. R. Portes, Hungary: economic performance, policy and prospects, in US Congress, *op. cit.* p. 783.
8. R. Portes and D. Winter, Disequilibrium estimates for consumer goods markets in centrally planned economies, *Review of Economic Studies* (forthcoming). Certain problems with their methodology and conclusions are discussed in D. W. Green, Household expenditures and the demand for money in the German Democratic Republic, unpublished manuscript, December 1978. S. Gomulka has suggested that the actual situation could be better labelled a "state of repressed substitution" rather than repressed inflation.
9. These issues have been extensively discussed in A. Zwass, *Monetary Cooperation between East and West*, White Plains, N.Y., 1975; L. J. Brainard, The CMEA financial system and integration, in P. Marer and J. M. Montias (eds.), *East European Integration and East-West Trade*, Indiana, 1979; and J. M. van Brabant, *East European Cooperation: The Role of Money and Finance*, New York, 1977.
10. van Brabant, *op. cit.*, Chapter 4.
11. Brainard, *op. cit.*, and van Brabant, *op. cit.*, Chapter 11.
12. The Yugoslavian experience is discussed within a property rights framework in S. Pajovich, The banking system and the investment behavior of the Yugoslav firm, in M. Bornstein (ed.), *Plan and Market: Economic Reform in Eastern Europe*, pp. 285–311, New Haven and London, 1973.
13. This argument regarding economic payoffs and the politics of economic reform has been made by several observers; see D. W. Green, Associations and the post-command economy: executive bolshevism in the Soviet Union, *Soviet Union* 4 (1977) 330–343.
14. Portes, *op. cit.*, pp. 780–783.
15. This argument will be treated more fully in D. W. Green, Foreign borrowing and the domestic role of East European banks, in US Congress, *East European Economic Assessment*, Washington, 1980.

Trade and Integration

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Economic growth diminished noticeably in the East European countries during the second half of the 1970s: the economic performance of the six smaller East European COMECON member countries combined expanded by an average annual rate of only 4.5%, whereas the average annual rate during the years from 1971 to 1975 had been 8%. Thus, in none of these countries has overall economic production met the requirements of the Party leadership, and it will be impossible to reach the targets of the current Five-Year Plan 1976–80 in any of these countries (According to the Five-Year Plans for 1976–80 the national product of these countries was to increase by 6.3% per year). This trend of diminishing growth will obviously continue during the 1980s: for 1981–85 an (estimated) increase in the economic performance in these six countries of 3.5–4% can be expected. Everything considered, the margin for an improvement in the standard of living of the population in East Europe will decrease in the 1980s.

In this situation, it cannot be expected on a medium-term basis that foreign trade in general and trade with the West in particular will make a positive contribution to the supply of goods. On the contrary, the growing debt service in all COMECON countries *vis-à-vis* western creditors requires that overall goods production grows more rapidly than domestic consumption. Moreover, the smaller COMECON economies will have to pay the higher prices for Soviet raw materials and oil out of this export surplus (the present Soviet oil price of 66 transfer roubles per ton will probably more than double by 1985). *Conclusion:* In these countries the growth of domestic consumption will have to be below the overall economic rate of growth, and this will primarily affect investments. Everywhere in Eastern Europe the greatest efforts will have to be made to increase exports as rapidly as possible: export-oriented growth will be the politico-economic strategy of the COMECON countries during the first half of this decade (In Poland, for instance, industrial production is to grow by 20–24% during 1981–85; for the production of export goods a growth of 41–46% is planned). This policy will also affect imports, especially the demand for investment goods from the West: while imports will grow only

moderately, the demand will be concentrated primarily on goods and technologies designed to save energy and raw materials and to increase the export potential.

The future development of co-operation within COMECON has to be seen against this background. Up to now, integration within COMECON—which has functions of co-ordination but no planning competence—has been based predominantly on bilateral harmonization and has consisted primarily of an exchange of goods as well as—to a much lesser extent—of services, capital and technical know-how. In the future, COMECON co-operation will give emphasis to the following: (a) the preparation of the five so-called long-term target programmes, (b) the development of general bilateral patterns of long-term specialization and co-operation in the field of material production between the USSR, on the one side, and the remaining COMECON countries, on the other side, and (c) intensification of planning co-ordination. If COMECON succeeds in effectively realizing these projects, which are mostly overlapping in terms of substance and time, the main emphasis of COMECON co-operation will shift from trade to production and thus also to investments (inevitably connected with elements of “supra-national” planning), and the dependence of the smaller COMECON countries on the Soviet economy would clearly grow. However, there are serious doubts whether this will be possible in view of:

- the existing monetary system which is the greatest obstacle to integration at present; the COMECON countries are eternities away from monetary policy integration;
- the existing institutional “super structure” which is marked by an almost confusing multitude of organizations, by the quasi-unanimous decision-making, and the preponderance of the bilateral element, i.e. national interests; and
- the continuation of the price-finding method which is valid at present (“Moscow principle”); according to the decision at the 93rd meeting of the Executive Committee this method is to be applied also in 1981–85.

The question remains open as to what effect the “post-Afghanistan” era will have on the common policy of the COMECON countries *vis-à-vis* third countries, whose initial stages have been visible since 1973, and on the political function of COMECON (“proxy” function for the Soviet foreign policy), which has clearly gained in importance in recent years.

The economic entwinement of the COMECON countries will also be influenced by the development of East–West trade. Due to the manner in which the Carter Administration responded to the Soviet invasion of Afghanistan, the general conditions for a stable development of East–West

trade, aiming at consolidating achievements, have considerably deteriorated already at the beginning of 1980. Whatever one may think about the purpose and direct effects of trade embargo measures, two points are particularly important in this connection:

- During the last decade quite a number of economic relations have been established between East and West which cannot be abandoned without damage to all concerned. This damage would be much greater to the smaller COMECON countries and the West European countries with more intensive East–West trade relations than the USSR and the USA.
- Seen in the medium-term, an embargo could again lead to a disintegration of Eastern Europe from the worldwide international division of labour. This would interrupt a development which led during the 1970s to a situation where the—politically and ideologically motivated—division into a “socialist” and a “capitalist” world market was overcome, because the leaders of the East European countries stated their willingness to involve their economies more strongly in the international division of labour—a fundamental political decision which had to be taken on a long-term basis because it partly overcharged the existing economic capacity of these countries (and this explains, amongst other things, the relatively high indebtedness *vis-à-vis* the West). This fundamental political decision—which is of greater importance than can be derived from the present share of East–West trade—is one of the most important bases of the policy of *détente*.

Les Transports dans les Réformes Economiques en Europe de l'Est

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Dans une économie à planification centralisée les transports sont soumis aux mêmes règles de fonctionnement que le secteur étatisé dans son ensemble; ils présentent cependant de nombreuses caractéristiques propres.

La principale spécificité des transports tient au fait qu'ils "produisent" un service et non pas un bien matériel. (Nous laissons ici de côté le problème important pour la comptabilité nationale du caractère matériel ou non matériel de ce produit, résolu différemment par les économies de marché, et même par les économies socialistes qui n'ont pas à ce sujet des positions identiques.) En outre, le service même est spécifique car, il existe un décalage entre le lieu de sa "production" et de sa "consommation". Le fait qu'il consiste à transporter des produits divers (et des personnes dont les besoins et les exigences sont multiples), à distances différentes et dans des conditions géographiques variées entraînent d'autres spécificités. Ainsi, les transports ne sont pas un secteur homogène, mais composé de plusieurs branches très différentes à bien des égards. Ils se caractérisent par une grande intensité capitaliste et un emploi important par rapport au revenu national produit par ce secteur (ceci étant valable aussi bien pour les économies socialistes que capitalistes).

Toutes ces spécificités sont-elles prises en compte par la planification centrale? Dans quelle mesure le domaine des transports est-il (ou non) affecté par les réformes économiques? S'agit-il d'un secteur qui résiste aux réformes, les "subit" ou qui, au contraire, dicte certaines modifications du système économique?

La première partie présentera les transports des pays du Comecon dans l'optique de l'adaptation de l'offre à la demande de transport. L'étude se limitera à l'URSS et aux pays européens: Bulgarie, Hongrie, Pologne, RDA, Roumanie et Tchécoslovaquie.

La deuxième partie sera consacrée à la description des méthodes de

planification et de gestion des transports. L'exemple de la Pologne servira à illustrer dans quelle mesure un fort accroissement de la demande de transport entraîne des réformes dans le fonctionnement du système traditionnel.

I. Les Transports des Pays du Comecon. La demande Face à l'Offre de Transport

Signalons d'abord quelques problèmes méthodologiques. De nombreuses imperfections des statistiques rendent difficile une analyse comparative des évolutions. Certaines statistiques sont introuvables, d'autres incomplètes, d'autres encore non homogènes. Ceci nous a amené à trier les données disponibles selon le critère de comparabilité et à les interpréter avec prudence.

Les performances économiques des transports sont présentées en unités naturelles: trafic en tonnes et tonnes kilomètres. (Le trafic ne peut pas être exprimé en termes monétaires car les tarifs de transport des pays socialistes, comme d'ailleurs l'ensemble des prix, ne servent pas aux choix économiques et ne représentent pas la valeur réelle du service-transport. En outre, leur comparaison intra-Comecon n'est pas possible à cause de la structure différente des tarifs nationaux de transport et de l'absence de taux de change "réalistes" des monnaies socialistes.)

Tout d'abord quelques données globales permettent de situer la place des pays socialistes dans l'infrastructure mondiale des transports.¹

L'ensemble des pays socialistes (y compris les pays extra-européens) représente 26,4% du réseau ferroviaire mondial; 14,9% du réseau routier; 53,3% de voies navigables internes; 9,6% de longueur mondiale d'oléoducs et 12,2% de celle de gazoducs. Leur part dans le trafic mondial de marchandises (en tonnage) s'élève à 60% pour le fer, 14% pour la route, 25% pour le fleuve, 18,9 pour les oléoducs et 19% pour les gazoducs.

A travers ces chiffres apparaît déjà une première caractéristique des transports des pays socialistes: la prédominance du trafic ferroviaire et l'exploitation intense de l'infrastructure ferroviaire. L'Union Soviétique assure presque 40% du trafic mondial de marchandises sur moins de 15% du réseau mondial.² Si le rapprochement de ces deux données permet d'apprécier la "productivité" de ce réseau, il suggère également sa saturation et sa fragilité.

Le tableau 1 présente l'importance du trafic de marchandises et du trafic de voyageurs des pays du Comecon en 1978. Nous pouvons constater que la part de l'Union Soviétique s'élève à 79% pour le tonnage global et à 85% pour le trafic exprimé en tonnes-kilomètres; ces relations expliquent très bien le "poids" de ce géant géographique dans l'ensemble de la zone. Le trafic des voyageurs en URSS s'élève à 86% du trafic des pays du Comecon, calculé en

nombre de personnes transportées et à 73% calculé en voyageurs-kilomètres. Les rapports nombre-distance sont inversés pour le transport de marchandises et de personnes, c'est à dire le facteur distance est plus important pour le transport de marchandises.

Tableau 1
Les transports de marchandises et de voyageurs en 1978
 (transports internes et internationaux)

Pays	Transport de marchandises en 1978 par tous les modes de transport		Transport de voyageurs en 1978 par tous les modes de transport	
	en millions de tonnes	en millions de tonnes-kilomètres	en millions de voyageurs	en millions de voyageurs- kilomètres
Bulgarie	461	80.262	3.732	30.311
Hongrie	398	40.082	3.318	36.226
Pologne	837	466.853	5.325	98.485
Roumanie	820	141.282	2.946	46.901
RDA	574	132.298	3.831	48.050
Tchecoslovaquie	663	100.498	4.369	52.096
Total sans URSS	3.753	961.275	23.521	312.069
URSS	14.164	5.668	142.002	841.855
		en milliards		
Total avec URSS	17.917	6.629	165.523	1.153.924
		en milliards		
Part de l'URSS (en % du total)	79	85	86	73

Source: *Statisticheskii ezhegodnik stran-chlenov Sovieta Ekonomicheskoi Vzaimopomoshchi 1979*, Moskva, Statistika, 1979, p. 315, 316, 319, 320, 322, 328, 329.

Le tableau 2 apporte des renseignements sur l'accroissement du trafic en 1978 par rapport à 1970.

Les données concernant le trafic de voyageurs doivent uniquement le situer dans l'ensemble du trafic des pays socialistes, mais par la suite l'étude insistera principalement sur l'accroissement du trafic de marchandises.

L'indice en tonnes concernant le trafic global des marchandises est le plus élevé pour la Bulgarie. Viennent ensuite la Roumanie, l'URSS et la Hongrie. En tonnes-kilomètres la première place revient à la Pologne, suivie par la Roumanie, l'URSS et la Hongrie. Le transport routier accuse un accroissement très marqué dans tous les pays; tout particulièrement en Bulgarie, mais également en Pologne, en Hongrie et en Roumanie. Ainsi, la part de ce transport dans le trafic interne en tonnage, qui était déjà très importante en 1970, s'est encore accrue comme le confirme le tableau 3.

Tableau 2
Accroissement du transport de marchandises, du transport de voyageurs, des investissements et du nombre des travailleurs dans les transports entre 1970 et 1978

Pays	Modes de transport*	Indice 1978 (1970 = 100)					
		Transport de marchandises		Transport de voyageurs		Investissements dans les transports**	Nombre de travailleurs dans les transports
		en tonnes	en tonnes/km	en nombre de voyageurs	en nombre de voyageurs kilomètres		
Bulgarie	Total	212	138	144	146	289	113
	Rail	110	124	94	106		109
	Route	237	296	135	167		130
	Mer	168	127				104
Hongrie	Total	142	154	142	123	201	111
	Rail	115	124	79	91		108
	Route	158	205	152	161		121
	Mer	172	420				122
Pologne	Total	122	213	156	147	212	103
	Rail	128	139	107	127		103
	Route	209	230	171	168		130
	Mer	236	280				150
Roumanie	Total	183	158	191	175	246	123
	Rail	152	145	108	128		105
	Route	193	203	272	279		180
	Mer	237	160				—
RDA	Total	115	109	132	131	135	101
	Rail	114	128	100	126		93
	Route	100	157	141	133		115
	Mer	141	90				130
Tchécoslovaquie	Total	131	125	117	125	174	98
	Rail	118	117	77	99		93
	Route	145	191	118	149		111
	Mer	172	123				—
URSS	Total	150	154	139	152	204	110
	Rail	130	137	123	125		106
	Route	162	180	148	179		121
	Mer	142	126				122

* Le tableau retient uniquement les modes de transport de marchandises les plus importants (rail et route dans le transport interne et rail et mer dans le transport international)

** y compris les télécommunications

Source: *Statisticheskii ezhegodnik stran-chlenov Sovieta Ekonomicheskoi Vzaimopomoshchi* 1979, Moskva, Statistika, 1979, p. 174, 317, 318, 321, 324, 392, 441, 443.

Pour la Bulgarie et la Roumanie les données ne sont pas disponibles.

Parmi les autres pays, c'est en Pologne que l'accroissement de la part du transport routier a été le plus important. Ceci s'explique par le transfert d'une

partie du transport à longue distance, effectué auparavant par les chemins de fer, vers le transport routier.

Tableau 3
Importance relative des principaux modes de transport intérieur de marchandises
(pourcentages)

		Rail		Route		Voies navigables		Oléoducs	
		1970	1977	1970	1977	1970	1977	1970	1977
Bulgarie		—	—	—	—	—	—	—	—
Hongrie	a	21,8	18,7	76,5	78,9	0,5	0,5	1,2	1,9
	b	71,0	61,7	20,9	26,6	5,7	4,4	2,4	7,3
Pologne	a	30,1	18,6	66,0	79,1	0,7	0,7	1,2	1,5
	b	79,8	69,5	12,7	20,9	1,8	1,2	5,6	8,4
RDA	a	34,8	28,0	61,4	67,0	1,8	1,4	2,0	3,6
	b	71,2	66,0	21,0	25,4	4,0	2,8	3,7	5,8
Roumanie		—	—	—	—	—	—	—	—
Tchecoslovaquie	a	24,7	19,8	73,4	78,4	0,4	0,4	1,4	1,3
	b	76,4	71,2	12,6	17,2	3,0	2,6	8,8	8,9
URSS	a	15,9	13,8	80,3	80,2	2,0	1,9	1,9	2,1
	b	78,6	68,6	7,0	7,7	5,5	4,7	8,9	19,0

a—tonnes b—tonnes-kilomètres

Source: Bulletin annuel de statistiques de transport pour l'Europe 1977, New York, Nations Unies, 1978, p. 14.

Si la route assure entre 70% à 80% de transport en tonnage, en tonnes-kilomètres la place dominante revient toujours aux chemins de fer et, suivant les pays, elle varie entre 60 et 70% du trafic total. Compte tenu de ce fait, l'accroissement du trafic par ce mode de transport en Pologne et en Union Soviétique apparaît comme considérable. (L'indice en tonnes-kilomètres est de 139 pour la Pologne et de 137 pour l'Union Soviétique.)

Comme le montre le tableau 3, le rôle des oléoducs est non négligeable dans le trafic interne total (Entre 5,5% de tonnes-km en RDA et 19% de tonnes-km en URSS). Cependant, le caractère non substituable de ce mode de transport exige de le traiter à part (comme le font les statistiques occidentales).

En revanche, il faut souligner la faible part du trafic fluvial dans les pays du Comecon. Comparativement, c'est en URSS qu'il a la place la plus importante: 1,9% en tonnes et 4,7% en tonnes-km. Pour la RDA, ces parts s'élèvent respectivement à 1,4 et 2,8; dans d'autres pays, la part en tonnage n'atteint pas 1% et la part en tonnes-km varie entre 4,4% en Hongrie et 1,2% en Pologne. Entre 1970 et 1977 la part du transport fluvial a diminué dans tous ces pays. Il est intéressant de noter à titre de comparaison, qu'en 1977 la part du transport fluvial dans le trafic total s'élevait à 21,7% en Allemagne Fédérale (en tonnes-km) à 56% aux Pays Bas et à 15,1% en Yougoslavie³.

L'absence de statistiques complètes sur le transport international ne permet pas d'établir pour ce type de transport un tableau analogue au tableau 3. Mais, selon une estimation polonaise non publiée concernant le trafic en tonnage intra-Comecon pour l'ensemble de ces pays, la voie ferrée est le principal mode de transport utilisée pour leurs échanges. Sa part diffère suivant l'inclusion ou non du trafic par tube dans le trafic global.

Selon le premier mode de calcul, utilisé couramment dans les pays socialistes, elle était de 53,5% en 1975 (60,7% en 1970), dans le deuxième de 70,6% en 1975 (72,9% en 1970). Contrairement au transport interne, dans le transport international la route joue un rôle mineur. En revanche, environ un quart du trafic se fait par la voie maritime, tandis que la part du trafic fluvial reste dans les relations intra-communautaires insignifiante.

Si pour l'Union Soviétique le transport externe est relativement peu important par rapport au transport effectué à l'intérieur du territoire national, pour d'autres pays cette part est non négligeable: 66% pour la Bulgarie, 37% pour la Hongrie, 27% pour la RDA, 26,5% pour la Pologne.⁵ Cette considération ne peut pas rester sans incidence sur la politique des transports de ces pays. Ainsi, la Hongrie dont 95% du tonnage importé et exporté passe par les chemins de fer doit en tenir compte dans sa planification. (Le trafic international non seulement accroît la demande de transport mais impose également certaines contraintes qualitatives.) Un deuxième pays pour lequel nous disposons de statistiques, la Pologne effectue 80% de ses échanges extérieurs (en tonnage) par voie ferrée et 18,5% par voie maritime.⁵

Il faut rappeler qu'un système national de transport est non seulement au service des transports internes et internationaux du pays, mais assure également le transit. En 1977, le transit ferroviaire constituait 6,4% du trafic ferroviaire total (en tonnage) en Tchécoslovaquie; 4,3% en RDA; 14,1% en Hongrie; 3,5% en Pologne.⁶ Le transit maritime en Pologne représentait 18,5% du trafic maritime en 1960, puis il a baissé à 12,1% en 1970 et enfin atteignait 7,5% en 1977 (les chiffres absolus de transit sont restés stationnaires tandis que le trafic maritime global de la Pologne progressait durant ces années).⁷ La diminution du transit, entraînée par l'insuffisance de l'infrastructure portuaire constitue une perte importante en devises étrangères pour l'économie polonaise.⁸

La croissance du trafic des pays du Comecon peut être illustrée par l'augmentation du nombre de tonnes transportées sur 1 km de voie ferrée et sur 1 km de route.

Toutes ces données témoignent un accroissement des transports qui, pour une part, s'explique tout naturellement par l'accroissement de la production et des échanges extérieurs. (Nous ne comparerons pas les taux de croissance du trafic calculés à partir des unités naturelles, avec ceux de la production

globale et des échanges extérieurs présentés habituellement en unités monétaires, bien que ce procédé soit couramment utilisé par certains auteurs. De telles comparaisons ne sont pas significatives dans la mesure où la croissance en valeur de la production globale se fait principalement grâce aux produits manufacturés dont la part dans le trafic national est relativement peu importante. En revanche, l'accroissement du trafic est dû essentiellement aux matières pondéreuses (matières premières, combustibles) constituant une part moindre de la production globale).

Tableau 4
Trafic en tonnes/1 km

Pays	Chemin de fer		Route	
	1970	1978	1970	1978
Bulgarie	16,2	17,2	3,4	9,1
Hongrie	12,8	16,7	4,9	7,7
Pologne	14,3	18,2	4,0	8,8
Roumanie	15,5	23,3	3,2	6,3
RDA	17,9	21,1	3,9	3,8
Tchécoslovaquie	17,8	21,1	3,1	4,4
URSS	21,4	26,9	2,8	4,3

Calculs personnels à partir de *Statisticheskii ezhegodnik stran chlenov SEV.1979*, Moskva, Statistika, 1979.

L'accroissement du trafic peut également avoir des origines structurelles: une spécialisation nécessitant des quantités importantes de matières premières pondéreuses, une mauvaise localisation de la production, un mauvais choix de fournisseurs. Tous ces phénomènes semblent jouer dans le cas des pays du Comecon.⁹

Quels moyens ont été mis par ces pays pour adapter l'offre à la demande croissante de transport?

D'après les données très globales, tirées du tableau 1, entre 1970 et 1978, dans tous les pays l'accroissement du nombre de travailleurs dans les transports a été moins important que celui du trafic, tandis qu'une tendance inverse a pu être observée pour les investissements. Cependant, les chiffres concernant les investissements incluent également les télécommunications. Par ailleurs, ils cachent la structure de la répartition de ces investissements entre différents modes de transport. Selon un auteur soviétique¹⁰ ce sont surtout les transports par tube, air et route qu'ont été bénéficiaires des

investissements. Une analyse des chiffres pour 1960 et 1977 (tableau 5) permet de constater qu'en Bulgarie, Roumanie et Tchécoslovaquie la part des investissements destinés aux transports s'est accrue tandis qu'elle a diminué en Pologne, RDA et Hongrie et est restée stationnaire en URSS. Entre 1960 et 1977, dans tous les pays, la part du capital fixe des transports dans le capital fixe global soit fléchissait, soit restait stable.

Les effets conjugués de l'accroissement du trafic et d'un sous-investissement relatif de ce secteur de l'économie sont à l'origine des graves problèmes de transport auxquels se heurtent depuis le début des années soixante-dix l'Union Soviétique et la Pologne.

C'est ce dernier pays que nous prendrons comme exemple, compte tenu des réformes tentées depuis 1970.

Tableau 5
Capital fixe et investissements dans le secteur des transports
(en pourcentage du total)

Pays	Années	Valeur brute du capital fixe	Investissements
		(en prix constants)	
Bulgarie	1960	16,8	7,2
	1970	13,4	8,4
	1977	15,3	11,8
Hongrie	1960	19,1	13,4
	1970	16,9	11,5
	1977	11,8	10,8*
Pologne	1960	10,1	11,2
	1970	11,1	13,0
	1977	10,3	9,4
Roumanie	1960	12,0	9,4
	1970	12,8	11,5
	1977	12,6	12,1
RDA	1960	10,2	10,6
	1970	9,8	8,4*
	1977	9,8	9,7
Tchécoslovaquie	1960	19,1	9,5
	1970	17,6	12,4
	1977	15,8	14,1*
URSS	1960	13,4	10
	1970	13,6	10
	1977	13,5	11,3*

* 1976-77

Source: Années 1960 et 1977: *Rocznik statystyczny 1979*, Varsovie, GUS, 1979 capital, p. 493; investissements: p. 492.

Année 1970: V. Shanina, *Transportno-ekonomicheskie sviazi stran SEV, Voprosy Ekonomiki*, 1977, N° 5, p. 96.

Tableau 6
Réseau des chemins de fer

Pays	Année	Longueur des lignes exploitées en km		dont électrifiées km %		Densité du réseau (en km pour 1000 km ²)
Bulgarie	1970	4196	811	19,8	37,8	
	1978	4341	1554	35,8	39,1	
	Indice 1978 (1970=100)	103	191			
Hongrie	1970	9168	935	10,2	99	
	1978	8090	1386	17,1	87	
	Indice 1978 (1970=100)	88	148			
Pologne	1970	26678	3872	16,6	85,3	
	1978	26835	6496	27,1	85,8	
	Indice 1978 (1970=100)	100	167			
Roumanie	1970	11012	494	4,5	46,4	
	1978	11119	2046	18,4	46,8	
	Indice 1978 (1970=100)	100	414			
RDA	1970	14658	1357	9,3	135	
	1978	14199	1514	10,7	131	
	Indice 1978 (1970=100)	96	95			
Tchécoslovaquie	1970	13308	2510	18,9	104	
	1978	13166	2900	22,0	103	
	Indice 1978 (1970=100)	98	115			
URSS	1970	135190	33861	25,0	6,0	
	1978	140439	41122	29,3	6,3	
	Indice 1978 (1970=100)	103	121			

Source: *Statisticheskii ezhegodnik stran-chlenov SEV 1979*, Moskvaa, Statistika, 1979, p. 311

Tableau 7
Réseau des routes

Pays	Ensemble des routes (en milliers de km)			dont routes à revêtement dur (en milliers de km)		
	1970	1978	Indice 1978 (1970=100)	1970	1978	Indice 1978 (1970=100)
Bulgarie	36,1	36,4	100	30,3	31,9	105
Hongrie	29,5	29,9	101	28,3	29,1	102
Pologne	271	256	94	130	146	112
Roumanie	75,9	73,4	96	57,7	62,1	108
RDA	45,7	47,5	103	45,7	47,5	104
Tchécoslovaquie	73,2	73,5	100	73,2	73,5	100
URSS	1364	1424	104	512	742	145

Source: *Statisticheskii ezhegodnik stran-chlenov SEV 1979*, Moskva, Statistika, 1979, p. 313

II. La Planification et la Gestion des Transports. L'exemple Polonais

Les années soixante-dix ont vu apparaître en Pologne un nouveau terme économique: celui d'“intensité-transport”. Employé pour attirer l'attention sur le rôle croissant du facteur “transport” dans la croissance économique du pays, sa définition suscite des controverses et pose quelques problèmes de quantification. Il s'agit en fait d'un indice macroéconomique qui, dans la pratique, est exprimé par un rapport soit entre le trafic et le Produit Matériel Net, soit entre le trafic et le nombre d'habitants. Cette méthode permet d'établir une intensité relative (par rapport aux années précédentes ou par comparaison avec d'autres pays), mais n'indique pas si les transports contribuent à accroître le revenu national. Le tableau ci-dessous illustre comment, entre 1950 et 1975, l'intensité-transport croissante de l'économie nationale s'accompagnait d'une baisse de la part des investissements de transport (signalée plus haut), menant inévitablement aux goulets d'étranglement apparus au cours du quinquennat 1975-1979.¹²

Tableau 8
Données globales caractérisant l'intensité-transport de l'économie Polonaise

	1950	1955	1960	1965	1970	1975
Intensité-transport de l'économie nationale:						
—tonnes pour 1.000 zloty du Revenu National	1,61	1,80	1,64	1,58	1,63	1,85
—tonnes/km en zlotys pour 1 zloty du Revenu National	0,217	0,227	0,245	0,253	0,292	0,310
Part des transports dans les investissements globaux dans le secteur nationalisé (en%)	15,2	10,2	10,1	11,1	12,8	11,7
Part des transports et des télécommunications dans le capital fixe (en %)	20,4	—	17,7	—	15,9	15,2

Source: K. Fiedorowicz, *Rozwoj infrastruktury technicznej, Gospodarka Planowa*, 1979, No. 6, p. 348.

Voyons comment est organisé ce secteur en Pologne et par quelles méthodes s'opère l'ajustement de l'offre à la demande.

L'organisation

La spécificité des différents modes de transport, signalée plus haut, impose une organisation diversifiée.¹³

Les *chemins de fer* sont organisés en une seule compagnie nationale (Polskie Koleje Państwowe, sigle polonais PKP). La compagnie possède l'autonomie comptable et une personnalité juridique.

Les *transports routiers* relèvent de plusieurs organisations qui peuvent être groupées en 3 catégories: les transports publics, les transports relevant de la

tutelle des ministères (en polonais: transport resortowy) et les transports propres, dits "économiques" (en polonais: gospodarczy).

Parmi les transports publics, on compte une grande compagnie nationale (PKS), les entreprises groupées dans l'Union des coopératives de transport, quelques transporteurs individuels.

Le transport "resortowy" relève des quatre ministères suivants:

- construction et production des matériaux de construction
- industrie des mines
- industrie interne et services
- industrie agro-alimentaire.

Rentrent dans cette catégorie également les entreprises de transport rural, groupées dans des coopératives (STW "Samopomoc Chlopska").

Enfin, le transport "économique" est effectué par les moyens propres des entreprises de production (qui peuvent avoir une section organisée de transport ou non).

Les *transports fluviaux et le cabotage* sont effectués par 7 entreprises dont 5 sont spécialisées dans le transport à l'intérieur du territoire et deux dans le transport côtier. Les entreprises desservant l'intérieur ne possèdent pas de spécialisation territoriale et peuvent, en principe, accepter des chargements venant de toutes les régions, conformément à un accord avec leur client. Il existe toutefois un organisme qui coordonne le trafic: l'Union du transport fluvial, subordonné au Ministère des transports (en polonais: Ministerstwo Komunikacji). Les deux entreprises côtières sont administrativement soumises au ministère du Commerce extérieur et de l'Economie maritime.

Le *transport maritime* est assuré par 3 compagnies nationales: P.L.O. (Polskie Linie Oceaniczne), P.Z.M. (Polska Zegluga Morska) et P.Z.B. (Polska Zegluga Baltycka); chacune d'elles étant spécialisée géographiquement.

Le *transport par tube* est coordonné par une société dont le nom "Amitié" a été emprunté à l'oléoduc du même nom. Elle existe depuis 1963 et est soumise à la tutelle du Ministère de l'industrie chimique.

La Planification

Le plan national fixe en unités naturelles les objectifs de transport et les répartit de façon administrative parmi les différents modes de transport. Cette répartition (devant en principe reposer sur une bonne connaissance des capacités de chaque branche) est relativement plus aisée pour les chemins de fer centralisés ou pour le transport fluvial, dont le rôle n'est pas important dans le trafic, que pour le transport routier, effectué par des entreprises diverses.

Depuis 1969, c'est le ministère des Transports, chargé de la coordination de toutes les branches des transports, qui élabore les plans centraux de transport.¹⁴ On distingue les plans quinquennaux, annuels et trimestriels, ces derniers étant les plus détaillés.

La demande de transport est évaluée d'après les données prévisionnelles venant des ministères et des centrales des organisations coopératives, précisant la nature des marchandises à transporter et le mode de transport demandé. Pour mieux renseigner le planificateur central, les demandeurs de transport sont tenus d'indiquer non seulement leurs besoins planifiés mais également le chiffre (en tonnes) concernant l'exécution du plan précédent.

Le plan définitif de transport interne (n'incluant pas les transports maritimes et aériens) comporte la répartition du trafic en distinguant les modes de transport et leur forme organisationnelle d'une part, et les catégories de marchandises d'autre part. Ainsi, le plan du trafic ferroviaire distingue 17 catégories de marchandises et une catégorie supplémentaire regroupant globalement le transit.

Conformément à une réglementation de 1959,¹⁵ toujours en vigueur, un ministre peut, en accord avec les pouvoirs régionaux, décharger les chemins de fer du transport de certaines marchandises en les imposant aux autres modes de transport. Ainsi, par une décision de 1975, même les chargements pondéreux (réservés par priorité au transport ferroviaire) sont uniquement acceptés à partir d'une distance minimale (établie séparément pour chaque produit); les distances plus courtes étant desservies par d'autres modes de transport.

Depuis 1977, les chemins de fer acceptent par priorité: le charbon chargé dans les mines, les marchandises destinées à l'exportation, les marchandises en transit ainsi que les marchandises désignées par les décisions *ad hoc* du ministère des Transports. Certaines marchandises sont complètement exclues du transport ferroviaire (oeufs, beurre, chaussures, boissons alcoolisées, animaux vivants etc), pour d'autres on impose la distance ou la quantité minimales, ou encore, le conditionnement spécial. Ainsi, certaines entreprises peuvent transporter leurs produits uniquement dans de grands conteneurs et ne peuvent pas utiliser de wagons couverts.

L'exécution des Plans: Instruments Economiques ou Coordination Administrative?

Rappelons les principales caractéristiques du système dit "paramétrique", préconisé depuis les années soixante-dix en Pologne pour remplacer le système traditionnel.

Le rôle du plan central est toujours prédominant. Sa "qualité" est toutefois meilleure car il repose sur les informations fournies par "la base" (les

entreprises). Moins détaillé, il détermine la croissance des principales grandeurs économiques, en laissant aux échelons inférieurs le soin de préciser les détails de réalisation de ces objectifs. Les entreprises sont guidées dans leur choix par les "paramètres" économiques fournis par le planificateur central, fixés de façon à faire coïncider les choix des entreprises avec les préférences macroéconomiques.

Ce modèle devait être appliqué progressivement à l'économie entière après les expériences des entreprises pilotes (WOG).¹⁶ L'échec de WOG a stoppé les réformes en les renvoyant à "plus tard": lorsque les grands déséquilibres économiques seront corrigés (balance des paiements équilibrée, offre interne ajustée à la demande etc.) et les paramètres améliorés.

Comme le reste de l'économie, les transports n'ont donc pas connu de réformes économiques, mais quelques mesures partielles d'amélioration du système qui, nous le verrons par la suite, ne vont pas pour l'instant vers la gestion paramétrique.

Théoriquement, selon la législation en vigueur, le plan central de transport doit résulter d'un calcul économique, effectué selon une méthodologie officielle.¹⁷ En réalité, la situation de pénurie d'offre de transport repousse les considérations d'efficacité économique au second plan et met en avant la satisfaction de la demande à tout prix. Cette attitude persiste même dans des périodes moins tendues, dans la mesure où l'on connaît les imperfections du calcul économique actuel.

En outre la réglementation centrale du trafic vide de son sens le calcul économique effectué dans des entreprises.

Des réformes ont été apportées depuis 1960 aux tarifs de transport afin de tenir compte des coûts effectifs des transporteurs.

Cinq tarifs sont en vigueur depuis le 1er janvier 1976.

1. Le tarif des chemins de fer
2. Le tarif de transport routier et organisation d'expédition
3. Le tarif d'expédition par la Société Nationale de Transport Interne (sigle polonais P.S.K.)
4. Le tarif d'expédition de grands conteneurs par P.S.K.
5. Le tarif dans le transport combiné: ferroviairo-fluvial.¹⁸

Tous ces tarifs, à l'exception de celui concernant le transport fluvial, sont calculés de façon à couvrir les coûts et de réaliser une certaine marge de profit. Seul le transport fluvial continue à être subventionné par le budget de l'Etat, jusqu'au jour, dit-on, où, grâce à sa modernisation, il sera véritablement concurrentiel par rapport aux autres modes de transport (ce qui est un but recherché pour décongestionner avant tout le transport ferroviaire).

Pour limiter le transport ferroviaire, le tarif du chemin de fer a été

nettement plus majoré que celui du transport routier. En même temps, les taux préférentiels sont fixés pour les expéditions par conteneurs et en palettes, ce qui doit rationaliser l'organisation du transport.

Le rôle des tarifs en tant que "paramètre" de choix entre différents modes de transport ne peut être que très limité dans la situation actuelle.¹⁹ La rationalisation des tarifs mérite toutefois d'être mentionnée car elle contribue à connaître le poids du transport dans les coûts des entreprises de production.

Le système des WOG a été expérimenté dans le transport routier, dans deux Unions de Transporteurs: "TRANSBUD" et "PKS".²⁰ En outre, les grands ports polonais réorganisés en deux complexes portuaires: GDANSK-GDYŃIA et SZCZECIN-SWINOUJSCE ont reçu le statut des WOG. On souligne la rationalisation du travail dans les ports, obtenus grâce à cette nouvelle organisation. Il est cependant difficile de juger l'impact des mécanismes économiques sur le fonctionnement de ces WOG.²¹

La grande diversité organisationnelle et l'absence de mécanismes économiques auto-régulateurs posent un important problème de coordination entre les différents transporteurs et leurs clients.

La coordination globale des transports est du ressort du ministère des Transports (sauf pour les transports maritimes qui sont sous la tutelle du ministère du Commerce extérieur et de l'Economie maritime.). Le ministère doit élaborer les directives concernant le rôle de chaque branche dans l'exécution des objectifs planifiés et mener une politique de développement de ces branches conformément aux besoins. Il est également habilité à décider administrativement de la redistribution des tâches entre différentes branches en fonction de l'urgence des besoins.

Au niveau des régions dites voievodies (województwa) et des ministères existent, depuis 1977, des organes de coordination dont l'appellation souligne leur caractère opérationnel. Il s'agit des "état-majors de transport", créés à la place des anciens organismes de coordination jugés peu efficaces (Commissions régionales et Comité de transport dans les ministères).²²

A la tête des "états majors" ministériels se trouvent des sous-secrétaires d'Etat nommés par les ministres respectifs et des vice-présidents des villes chefs-lieux des voievodies (premiers adjoints au maire). Leur autorité doit assurer l'exécution rapide des décisions prises par ces organes.

Les états majors s'intéressent à toute activité des entreprises liée au fonctionnement de transports. C'est pourquoi font partie de ces organes non seulement les spécialistes des transports mais également ceux de l'approvisionnement, du magasinage, de la vente etc.

Comme dans l'organisation militaire, il s'agit d'un organe collégial, mais où la voix du président est décisive. Dans les entreprises existent des groupes de transport (zespoly).

Les solutions adoptées ces dernières années semblent s'éloigner du système paramétrique.

Cependant, la réalité économique de ce secteur devrait conduire logiquement à une certaine décentralisation et à l'utilisation des instruments économiques de gestion.

Nous avons pu constater d'après les chiffres que le transport routier devient de plus en plus important dans le trafic inter ne en Pologne. Or, de par sa spécificité, il se prête mal à une organisation et une planification détaillée venant d'en haut. On pourrait imaginer, par exemple, la délégation de prérogatives aux pouvoirs régionaux pour organiser ces transports. Les tarifs des transports pourraient retrouver leur rôle économique, tandis que des accords entre les transporteurs et les clients pourraient donner plus d'assise à la planification.

Nous pensons que le rôle prédominant du transport ferroviaire en Pologne est dû au fait que son organisation se prête naturellement à une planification centralisée. La modification des méthodes de planification et de gestion pourrait contribuer à décongestionner cette branche.

Cependant, pour sortir de l'impasse, il ne suffit pas de changer le mode de planification et de gestion des transports. Ces changements doivent aller de pair avec les transformations du système économique dans son ensemble. Il s'agit notamment de supprimer les indices bruts de production (utilisés pour évaluer les résultats économiques de l'entreprise) qui incitent à augmenter les prix à la production par tous les moyens, y compris par l'accroissement du transport.

Notes

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16. Voir à ce sujet: (a) A. Darska, Le système des entreprises pilotes en Pologne, *Revue d'Etudes Comparatives Est-Quest*, vol. 6, 1975, n° 2, p. 73–135; (b) P. T. Wanless, Economic reform in Poland 1973–79, *Soviet Studies*, vol. XXXII (1980), n° 1, p. 28–57.
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18. Blotko, op cit., note 13, p. 75.
19. A ce sujet voir: (a) S. Augustyn, Ekonomiczne sterowanie transportem, *Zycie gospodarcze* n° 48, du 27.XI.1977, p. 11.
(b) K. Piotrowski, Ceny usług przewozowych w parametrycznym systemie zarządzania, *Ekonomista*, 1974, n° 2, p. 371–97.
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The Implications of Economic Reforms in Eastern Europe for the Future of East–West Relations

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The new wave of economic and institutional reforms initiated throughout the USSR and Eastern Europe at various points in the late 1970s will doubtless affect the external trade systems of these countries and consequently the future prospects for the East–West relationship.

The special importance placed upon the qualitative aspects of growth is being reflected, to a fairly large extent, in intensive technological development and in the improved system of management and planning. However, it must pointedly be stated that the efforts currently under way to enable the economic mechanism to respond more sensitively to economic impulses are by no means intended to replace the machinery of detailed planning and control by some kind of “market socialism”.

Apparently, the need to stimulate greater economic efficiency and to adopt an intensive pattern of development through large-scale innovation and a better use of limited materials and labor force will remain confined within rather definite bounds because of extra-economic tenets and political considerations. There seems to be little likelihood that any dramatic change will occur in the near future; pressing as pragmatic considerations may be, they will not easily be allowed to outweigh strong ideological objections. On the whole, some East–West convergence may be achieved in life-styles but not in political and economic systems.

The basic systemic constraints on East–West trade and economic relations will therefore persist even though some rigidities might be considerably eased.¹

This is not the place to discuss in detail neither the common features nor the significant dissimilarities which characterize current reforms in the USSR and Eastern Europe. The roots of these dissimilarities can be traced to the specific foreign trade and other internal problems, not all of them attributable to central planning, which each country has to face.

Although no easy generalizations are possible and sharp differences exist in the concerns of the USSR and Eastern Europe, it would appear that in these countries trade policies crucial to future economic performance are becoming increasingly selective.

The growing and widespread recognition, at both the government and enterprise levels, of the benefits of specialization and comparative advantage will eventually lead to further changes in import and export strategies. Agencies other than foreign trade ministries seem to be gaining importance, gradually increasing their autonomy and playing a more direct international role, even outside the more decentralized foreign trade systems such as that of Hungary.

Some large industrial combines will be vested with a relatively high degree of flexibility with regard to the purchase of supplies and the sale of products on foreign markets.

Moreover, further steps are apparently being taken by a number of East European governments in order to encourage joint ventures between domestic and foreign firms both at home and abroad. These steps seem to be all the more important since industrial specialization, particularly in the form of subcontracting and joint ventures, still plays a rather modest role in East-West economic relations.

On the other hand, external investments by the USSR and East European countries (especially Poland and Hungary) in West European and, though to a very limited degree, North American economies, are likely to grow to a fairly large extent.²

On a theoretical plane and apart from their many practical implications, industrial cooperation and direct foreign investment reflect an important evolutionary trend and could represent a significant departure from deep-rooted dogmatic conceptions. Obviously, it is by no means easy to determine exactly how far the process has come nor to predict how much further it will go in the 1980s.

In nearly all the socialist countries of Europe there seems to be a good deal of scope for extending reform policies by adapting institutions and mechanisms so as to facilitate trade and economic relations with the West. In this context, the most daring changes in the practice of economic management are apparently taking place in Poland and particularly in Hungary, which depends on foreign trade more than any other country in the area. These two countries might well serve as a testing-ground for other East

European economies and the USSR itself. Yet there appears to be no evidence that policy-makers are prepared to introduce any far-reaching reform which, *inter alia*, might seriously impair the national planning of foreign trade.

The more or less strenuous exploration of new forms and possibilities of inter-governmental and inter-firm cooperation with the West is likely to involve, to some extent, those production areas already covered by long-term integration arrangements within the CMEA framework.

So far, intra-CMEA coordination apparently affects only a limited number of key sectors and selected joint projects mainly in the field of energy and industrial materials.

Some progress towards a CMEA-wide planning in the 1980s will probably result from the gradual implementation of the five long-term programs of cooperation adopted in 1978 and 1979 in the fields respectively of energy, fuels and raw materials, agriculture and the food industry, engineering, industrial consumer goods, and transport facilities.

The decision to concentrate coordination efforts in a few selected areas necessarily involved a significant revision of the overall cooperation and integration targets such as those indicated in the well-known *Comprehensive Program for the Further Extension and Improvement of Cooperation and the Development of Socialist Economic Integration* adopted by the CMEA Assembly in July 1971.³ In particular, some basic objectives of the *Comprehensive Program* concerning monetary and financial matters have apparently been shelved.⁴

Although a CMEA-wide coordination of demand and supply for important groups of goods and services inevitably restricts an individual country's latitude for economic and institutional reforms, national planners in Eastern Europe will probably retain close control over major policy issues. Despite persistent efforts by the USSR to strengthen the multilateral planning apparatus, little devolution of authority over substantive issues to CMEA organs is probable in the near future. Moreover, the growing importance of CMEA non-European "developing" members will make effective coordination even more difficult, thus contributing to keep genuine multilateral planning on a minimal scale.⁵

Be that as it may, throughout the Eastern half of Europe a substantial effort is being made at creating conditions for a stable and balanced growth in a long-term perspective, improving both the quality of production and the efficiency with which human, material, and natural resources are used. In this context, export-promoting and import-restraining policies appear to be common to all countries of the area and trade with the West will play no minor role in the implementation of the new strategy. Although the USSR and East European countries do not generally coordinate their economic

relations with the West, the degree of similarity of foreign trade policies among these countries is now greater than in previous years.

On the Eastern side, there exists a substantial capacity for increasing westward flows of goods. As a matter of fact, the expansion of exports of industrial products (machinery, equipment, and other manufactured goods) to the West may prove of decisive importance if the pace of economic growth is to be maintained.

It should in any case be borne in mind that Eastern imports have been growing largely because of heavy borrowings in Western capital markets. Official export credits and suppliers credits also play a far from negligible role.

On the Western side, protectionist commercial policies are growing in both scope and strength while questions are being raised as to the soundness of extending further credit to Eastern countries. A tendency is under way to reverse import liberalization measures by moving towards greater use of quantitative restrictions, anti-dumping and surveillance procedures, and voluntary export restraint agreements with regard to several products in which Eastern countries enjoy, at least to some extent, a comparative advantage.

In addition, as far as scientific and technical cooperation is concerned, it is often argued that the flow of commercially based science and technology must not be encouraged since it is clearly one-sided in favor of the East.

To complete the framework it is also essential to consider the change in Western and particularly American attitudes towards the expansion of trade with the USSR as a response to events in Afghanistan. Apart from the grain embargo, counter-measures announced by the United States include the freezing of all export licences for high-technology and other strategic goods, thus seriously affecting Soviet purchases of chemicals, computers, car- and truck-making technology, and oil and gas exploration know-how. Although there are some genuine differences of interest between the United States and its allies and a good many West European governments and business circles seem to believe that trade relations with the USSR are far too important to be jeopardized by economic sanctions, the simple fact remains that the prevailing mood will not be conducive to an early dismantling of tariff and non-tariff barriers.

Whatever the uncertainties about the future prospects of *détente*—indeed there has never been an agreement between the two superpowers on what it really means⁶—the undeniable complementarities existing between centrally planned and market economies would seem to justify a far greater degree of specialization than is now the case. Such a specialization would make it possible to build greater symmetry to the totality of East–West economic relationship and to stabilize, at least to some extent, its capital base.

Although it is not easy to assess precisely the existing pattern of specialization in East–West trade, it can hardly be doubted that the commodity composition of that trade lies among the primary causes of the differential dynamism which characterizes westward and eastward flows. The uneven trends in the two trade flows and the resulting systematic tendency towards surpluses in favor of Western countries will adversely affect the future prospects for a fast and balanced growth of East–West exchanges of goods.

The pressing need to correct trade imbalances and to prevent levels of deficit on East–West account from increasing too quickly will probably induce the USSR and a number of East European countries (Poland, Hungary, and, to a lesser extent, Romania and Bulgaria) to place greater reliance on supplies from domestic sources and from within the CMEA area. On the other hand, the widening of the East European countries' deficits with the USSR is another cause of major concern. The USSR is a trade partner of paramount importance for all other CMEA members both as a supplier of large quantities of fuels, primary and other intermediate products, and as a purchaser of machinery and consumer goods. To counterbalance the negative influence exerted on intra-CMEA trade by the growing East European deficit, credits have been extended by the Soviet Union which is also trying to increase imports faster than exports.

As stated before, for a variety of economic and political reasons, the official policies of most Western countries are not directed towards the elimination of existing obstacles and barriers to East–West relations. In fact, the removal of any substantial constraint on the advance in East–West trade seems most unlikely in the foreseeable future. Present economic conditions in Western countries and the crisis of *détente* are not favorable to the improvement of East–West cooperation in any specific area nor will the working out of an agreed all-European concept as regards the implementation of the provisions of the Helsinki Final Act be an easy task. This will raise increasing doubts in various Western circles about the wisdom of seriously considering all-European cooperation in such vital fields as energy, transport, and environmental protection. The suspension of ministerial contacts, the ban on the negotiation of new agreements, and some kind of export embargo on high-technology goods and other items might contribute to significantly reducing the scale of commercial, industrial, scientific, and technological cooperation, and are likely to cause no small harm to the totality of the East–West relationship.

Although the adverse factors affecting the trade and payments position of some Western countries must not be underestimated, it seems only wise to aim, at the very least, to halt the introduction of any new restrictions and obstacles in East–West economic relations.

As far as European countries are specifically concerned, the failure to exploit the gains resulting from a region-wide pattern of specialization can only mean, in the end, greater penalties for all. The interdependence between both halves of Europe has increased considerably during the past decade, and any serious economic failure in one system will have a negative effect in the other.

Given the probability of rather modest annual growth rates of GNP in the industrialized countries of Western Europe in the near future as a result of continuing and widespread slackness in economic activity, pressures for protectionist regimes, and, within the EEC area, for more discriminatory measures against outside suppliers, are likely to become intense in both degree and quality. At the very least, this evolution will delay those adjustments in the intra-European patterns of trade which can and should benefit both halves of the continent, since they reflect shifts in comparative advantage.

The present extent of intra-European specialization is far from being appropriate to the economic, scientific, and technological potential of the countries concerned; the failure to recognize and to make full use of the complementarities existing between West and East European natural, industrial, and human resources will benefit neither side in the long run.

Moreover, the East European countries will be discouraged from introducing further changes towards greater flexibility in foreign trade planning and will be compelled to rely more heavily on the USSR and on a CMEA-wide division of labor.

This is all the more relevant since these countries, owing to their fairly high trade participation ratios, are apparently more responsive to economic than political considerations in the elaboration of their foreign trade policies.

The present balance-of-payments difficulties of East European economies should be gradually overcome through the steady expansion of exports to West European countries rather than through a reduction in so-called non-essential imports such as consumer goods and some intermediate products.

On the East European side, the development of a viable and highly efficient export sector able to produce those labor-intensive and capital-intensive items in which there exists a comparative advantage will require much bolder measures than has been the case thus far. Greater progress towards these export goals will depend, *inter alia*, on a careful selection of exportables, a sufficiently rapid growth in production capacities, improved quality, and widened product range and efficient marketing.

This evolutionary trend—which on no account is to be taken for granted—towards a less-centralized and more efficient foreign trade structure will be considerably delayed if East European countries lose more and more markets in Western Europe, which accounts for the bulk of

East-West trade. Needless to say, the degree to which Western and particularly EEC protectionist measures affect the economy of individual East European countries or are likely to be partially offset by countermeasures, varies considerably. The East European countries differ widely not only in their resource endowment and level of economic development but also in their economic strategy and political orientation; therefore, Western restrictions may result in serious damage or cause only minor shocks. In addition, each East European country is treated differently by the Soviets and the special links with the USSR or even with some countries outside the CMEA area—such as is the case of the relationship of the GDR with the FRG—may further contribute to increase or decrease the difficulties.

Apart from the negative impact on the East European exports of West European and particularly EEC tariff and non-tariff barriers and the high opportunity cost for both sides of a continuing polarization in the commodity structure of intra-European trade, other factors should be taken into account when assessing the relative importance of the smaller European members of CMEA.

In view of the crucial function of Eastern Europe in the continental and world balance of power, more attention should be paid by Western Europe to the changing features of the relationship between the USSR and individual East European nations.

Despite the obvious limits of the challenge of Eurocommunism to the East European regimes,⁷ the gradual shift, initiated at the Berlin Conference of European Communist and Workers' Parties in June 1976, from the time-honored notion of "socialist internationalism" to the more flexible formula of "internationalist solidarity", should not be overlooked.⁸ East European policy-makers—although they share fundamental policy interests with the USSR—appear to be willing to take into more adequate consideration the long-term advantage of their own countries.

To date no substantial effort has apparently been made by Western Europe to play an active political role in Eastern Europe with a view to encouraging reformism in domestic matters and more independent postures in foreign relations. Whether and to what extent such a course might be successfully pursued can only be a matter of conjecture.

The question is not so much whether the all-embracing and sophisticated network of bilateral and multilateral ties between the USSR and Eastern Europe should be openly challenged—a move which could eventually lead to a cold-war-like rupture with the Soviet Union—but rather whether the cautious attempts of some East European regimes to question on occasion the Soviet model and traditional practice in domestic or foreign affairs could and should be matched by a more realistic level of support from West European

countries. There seems to be little or no reason to expect any remarkable change to take place in the balance of forces in Eastern Europe as long as the Western half of the continent and the other Western countries abide by their wait-and-see attitude and let things take their course.

At the very least, it would seem appropriate on the Western side to react in a more enlightened fashion to the present difficulties in East European economies. This is especially true for the EEC countries whose contribution in East–West trade is very large both in terms of the supply of goods and in the extension of credit.

Apart from the implications in terms of international politics, the EEC has a decisive role to play in international economic relations and can significantly concur to remove a number of obstacles which would otherwise remain a major constraint on the orderly growth of East–West trade.

There is yet another significant aspect which should not be overlooked. Protective barriers raised by the EEC generally affect imports from the East European countries to a much greater degree than imports from the USSR. The increasingly disturbing results brought about by protectionist policies against several East European industrial manufactured products appear to outweigh considerably the positive influence of import liberalization measures and tariff preferences adopted with regard to other goods. In addition, East European exports of foodstuffs face severe limitations because of agricultural protectionist policies in Western Europe. This is all the more true with regard to the system of variable levies adopted by the EEC which is by far the most important purchaser of foodstuffs from CMEA countries. It need not be stressed that exports of agricultural and food products to Western Europe and especially the EEC area represent for the East European countries a substantial source of much-needed foreign exchange earnings.

Despite the obvious fact that trade with Eastern Europe is not as vital to the EEC as trade with the EEC is to Eastern Europe, the nine countries of the Community should not underestimate the importance in many ways of closer links with the smaller European members of CMEA. Conventional trade in goods should be given increased attention and the EEC markets should become more receptive to imports from Eastern Europe—especially manufactured and technologically advanced products—if tendencies towards bolder economic and institutional reforms in individual countries and within CMEA are to be encouraged.

It is most unlikely that East European enterprises will avail themselves of the new possibilities offered by the current wave of reforms when their access to world markets is hampered by strong protectionist policies and severe quantitative restrictions. The necessity to secure energy and raw materials supplies crucial to their future growth will force East European countries to invest into huge projects in the USSR thus giving a positive response to Soviet

pressures for increased CMEA-wide planning. In particular, countries such as Poland and Hungary will find it even more difficult to push for a wider use of some market and monetary instruments in the cooperation and integration process.

On the EEC side it would seem only wise to recognize that substantial progress in capital accumulation, technical expertise, and research facilities has been made in Eastern Europe and that some countries of the area are relatively well endowed with resource-intensive materials such as energy, metals, non-metallic minerals, and timber. While it would be rather naïve to regard trade as a major lever to bring about comprehensive systemic changes in the East European economies, it should be kept in mind that economic policy is apparently the area where East European regimes enjoy the greatest autonomy, being less subject to Soviet influence. In view of the serious economic and political problems, which the Soviet leadership is likely to face in the 1980s, the possibility of fairly diverging economic reforms in Eastern Europe cannot altogether be ruled out. This is all the more significant on account of the growing awareness of East European policy-makers that technology transfers and capital imports cannot be considered as a substitute for more far-reaching changes in the planning and steering mechanisms.

Obviously, one of the basic issues for the 1980s is whether the international environment will continue to be as supportive of trade and industrial cooperation between Eastern Europe and the EEC as in the past decade. Though Western economic sanctions imposed in the wake of the Afghan crisis appear to be limited to the USSR, a number of East European countries worry that their substantive links with the West may be in jeopardy. Any major setback in the progress of *détente* is likely to hurt severely intra-European relations and is a cause of major concern to East European policy-makers who know all too well they will not easily be allowed to go on strengthening their ties to the West to the detriment of the USSR.

On the other hand, the EEC countries themselves cannot overlook the outstanding importance of the USSR in the total Eastern trade flows. On the Soviet side—whatever the extent of the post-Afghanistan Western counter-measures—there seems to be a fundamental willingness to stay on good enough terms with the EEC in order to retain the substantial benefits of mutual cooperation. Apart from the uncertainties surrounding the domestic political scene, the economic performance of the USSR in the 1980s will be adversely affected by major difficulties such as a sluggish growth rate, a serious shortage of foreign exchange, and a growing inability to increase oil deliveries to its smaller CMEA partners. With the exception of Poland with its coal and Romania with its oil and gas, East European countries depend to a very large extent on the USSR for their energy supplies.⁹ If these supplies fail to meet their growing energy needs, there is little likelihood that the East

European economies will be able to attain their industrial growth targets with the ensuing danger of widespread domestic unrest not only among dissident intellectuals but among workers and peasants.

In order to make up for the insufficient Soviet deliveries and to fill at least part of their growing energy gap, East European countries are being forced to participate more extensively in CMEA joint projects for the development of energy resources in the USSR, to double efforts to boost domestic production of coal, oil, and gas, and to raise nuclear energy output, to save fuel through improved efficiency, and, finally, to rely more heavily on Middle Eastern oil. Since only a modest share of the total oil imports will apparently be available under barter arrangements, East European hard currency needs are likely to increase dramatically. In other words, imports of much-needed oil will have to be paid for with exports, thus giving top priority to the expansion of westward trade flows and the resultant improvement in trade balances.

The problems of getting adequate supplies of energy are of the utmost importance also in the Western half of Europe and could be eased to a fairly large extent through East–West and particularly intra-European cooperation. Joint investment projects, especially in the form of compensation agreements, could provide Western capitals, technology, and know-how to the Eastern half of the continent with a view to improving the European energy systems (electric energy, natural gas, oil, and coal) and the transportation of electric power, coal, and the energy products derived from coal.

To maintain a balance between energy supply and demand in the longer run would also make it necessary to support more effectively research and development activities in alternative sources.

The Final Act of the Helsinki Conference calls for increasing common and effective efforts towards the solution of major world economic problems and emphasizes the importance of “projects of common interest” mentioning such fields as energy, raw materials, and transport.¹⁰

On the Soviet side, proposals have been put forward for three pan-European high-level conferences on energy, transport, and environmental protection in order to draw up a list of major projects that could be undertaken within a regional framework. Apart from their broader policy implications, these specific proposals seem to deserve careful consideration and should not be regarded merely as an expression of the Soviet and East European pressing need to get access to Western technology. Though it is a well-known fact that growing deficiencies in energy supplies and transport infrastructure and equipment represent a key factor in the declining pace of growth of Eastern economies, the critical importance of closer intra-European cooperation in these fields should not be underestimated.

There seems to be a broader East–West consensus on the need for a number of measures in the field of environmental protection. Within this context, a treaty to curb long-range air pollution caused primarily by fossil fuels was signed in November 1979 in Geneva by West and East European countries, the USSR, the United States, and Canada. The close connection existing between environmental protection and the development of energy sources could eventually lead to view more favorably the proposals for a Europe-wide conference on energy.

Obviously other significant problems well beyond the purely economic, financial and technological sphere are at stake in East–West relations and must be taken into account. One major Western concern regards the fact that the Soviet and East European regimes fail to abide by the human right sections of the Helsinki Final Act. Moreover, the fallout from the Afghan crisis is likely to deal a serious blow to the tentative efforts of some East European countries such as Poland to improve, at least to some extent, their human-rights record.

The strength of an all-European approach to pressing common problems would be greatly enhanced if both integration groups of the continent were to participate more actively in efforts gradually to reduce barriers to increased and more balanced relations. The significant dissimilarities, both formal and substantial, between the EEC and CMEA do not seem to preclude the successful conclusion of an agreement on the guidelines to be followed in mutual relations. After a rather long period of reciprocal cold-shouldering, an orderly and mutually beneficial relationship should be regarded by both parties as a decisive step towards the achievement of the goals set forth in the Final Act of the Helsinki Conference. Although the two organizations view the great problems of the moment from quite different angles, considerable progress may be made and sound decisions be reached in order to build a more effective framework for a fruitful two-way exchange of goods, services, and technology.

Needless to say, the exploration of specific areas for possible cooperation between the EEC and CMEA must be based on the full recognition of the distinctive features of each organization. More often than not such features are viewed differently by experts and negotiators of each integration group, thus generating perplexities and misunderstandings which hamper the effective development of a dialogue between the EEC and CMEA.

The concept of supranationality is one which has aroused heated contrasts indeed on the nature and limits of integration in both Western and Eastern Europe. According to a good many Western scholars and policy-makers, CMEA is a substantially powerless organization while the EEC enjoys unquestionable supranational powers and competences. Under certain aspects, such a conventional picture may prove at least inaccurate.

It should be pointed out here that, even though the importance of institutional structures and arrangements cannot and must not be underestimated, the evolution of the EEC and CMEA has demonstrated that both groups are based ultimately on the common denominator of willingness and readiness by each member country to cooperate. The many-sided difficulties which impede or delay progress in the implementation of cooperation and integration programs in both the EEC and CMEA do not seem to be essentially of a technical-institutional nature. In many cases in-depth cooperation cannot be effected due to the lack of a firm commitment and of clear and pressing common objectives on the part of the countries concerned.

With regard to international personality, it cannot be denied that CMEA is competent to be a party to international treaties such as cooperation agreements with other international institutions and non-member countries.

A more substantial objection relates to the respective competences of the two organizations in the trade policy area: whereas the external competences of the EEC in this field are rather well defined, serious doubts have been raised about CMEA. In order to appraise more fully the legal capacity of the CMEA to treat on this level of international relations, it is essential to recall the relevant provisions of the Charter and of the *Comprehensive Program*.

Article III, para. 1*d* of the CMEA Charter clearly states that the organization "shall assist the member countries in elaborating, *coordinating* and carrying out joint measures" for the "development of trade and exchange of services among the member countries and *between them and other countries*" (italics added). Moreover, the CMEA shall take "such other actions as may be required for the achievement of its purposes" (Article III, para. 1*f*).

Other pertinent provisions are laid down in para. 3, section 1, chapter I, of the *Comprehensive Program* which declares that the CMEA member countries "shall jointly or separately take steps to ensure cooperation and equal membership for the socialist states still discriminated against in international economic, scientific and technological organizations"; in order to attain these goals, the member countries "*shall coordinate their foreign economic policy* for the purpose of normalizing international trade and economic relations, notably of abolishing discrimination in that field" (italics added). These statements seem to deserve careful consideration since negotiations between the EEC and CMEA are likely to deal, *inter alia*, with the removal of the discriminatory barriers maintained by the EEC members against goods coming from CMEA countries.

On the other hand, it should be borne in mind that the EEC as such has no authority at all in industrial cooperation and financial issues, its activity being confined to trade matters only.

Aside from strictly legal uncertainties and dilemmas, significant as these may be, a major cause of concern for policy-makers of the EEC countries apparently stems from the strong belief that any successful negotiation with their Eastern counterpart would substantially increase the powers of CMEA, thus formally acknowledging and supporting Soviet economic and political domination of Eastern Europe. However, the wisdom of such an attitude seems to be increasingly open to question.

While the extra-economic implications of an EEC-CMEA agreement for both parties should be given due regard, it would be probably incorrect to assume that any development which strengthens the position of CMEA as a distinct economic entity necessarily strengthens the position of the USSR *vis-à-vis* its smaller partners. Furthermore, there is no obvious case for saying that East European countries, as a rule, expect to reap more benefits through bilateral agreements with individual EEC members or with the EEC as such than through a global EEC-CMEA settlement.

As stated before, individual East European countries have diverging economic and political interests and consequently diverging approaches to EEC-CMEA negotiations. However, East European countries as a whole are far more interested than the USSR in negotiating adjustments and obtaining concessions with regard to the EEC Common Commercial Policy (CCP) and Common Agricultural Policy (CAP).

Both the CCP and the CAP disturb to a remarkable extent westward flows of goods, thus adversely affecting East European exports of foodstuffs and industrial manufactured products. On the other hand, the Soviets have been pushing for years for huge cooperation projects with the West.

The bargaining power of smaller CMEA members might be considerably enhanced through a CMEA-wide coordinated action towards the EEC, even though in such action the USSR inevitably brings its own basic interests, which are not in the area of conventional trade.

A persistent refusal on the part of the EEC to negotiate with its Eastern counterpart on substantive trade policy issues might ultimately lead to negative consequences for the smaller CMEA countries increasing their dependence on the USSR and discouraging economic reforms. It is more likely than not that more flexible EEC policies will help East European countries to differentiate their economic systems according to their foreign trade needs.

An EEC-CMEA agreement might provide a basic infrastructure to monitor and nourish intra-European initiatives and to develop an early warning system with respect to economic problems which will emerge as mutual relations mature. A good number of basic East-West issues may be appropriately discussed and handled at the EEC-CMEA level, leaving specific problems to bilateral negotiations between member countries of each

group or between individual CMEA countries on the one side and the EEC as a whole on the other side. The EEC–Romania negotiations, which are currently under way, might provide an important and useful blueprint.

Of course, these and other problems must be considered within a wider framework and are likely to be deeply influenced by coming international events such as the meeting which will take place next fall in Madrid to review the Helsinki agreement signatories' performance on basic issues, including human rights.

Notes

1. A closely and clearly argued account of the economic aspects of East–West relations, with reference to the latest developments, is to be found in M. Lavigne, *Les relations économiques Est–Ouest*, Paris, 1979; see also J. P. Hardt (ed.), *Tariff, Legal and Credit Constraints on East–West Commercial Relations*, Carleton University, Ottawa, 1975; C. McMillan (ed.), *Changing Perspectives in East–West Commerce*, Lexington, Mass., 1974; J. Wilczynski, *The Economics and Politics of East–West Trade*, London, 1969.
2. According to the Secretariat of the Economic Commission for Europe (*Economic Bulletin for Europe*, 30 (1) 79) the investments of the USSR and East European countries in Western economies have reached roughly \$1 billion, of which \$600 million is interest-bearing capital in more than 300 joint ventures. A further \$340 million is invested in shares in banks and other credit institutions. For a detailed analysis and discussion of this topic, see C. McMillan, Growth of external investments of Comecon countries, *The World Economy* 2 (3) (September 1979) 363–86; C. McMillan, Soviet investment in the industrialized Western economies and in the developing economies of the Third World, *Soviet Economy in a Time of Change*, pp. 625–47, Joint Economic Committee, US Congress, Washington DC, 1979.
3. The full English text of the *Comprehensive Program* has been published in 1971 by the CMEA Secretariat in Moscow; see also *The Charter of the CMEA* published by the Secretariat in 1980.
4. According to para. 16 section 7, chapter II of the *Comprehensive Program*, the “decision on the introduction of a single rate of exchange for the national currencies [of the CMEA member countries], and on the date of its introduction shall be adopted in the course of 1980”. Given the present stage of development of intra-CMEA monetary and financial relations, it seems most unlikely that such a decision may be taken during 1980. Moreover, no effective measure appears to have been adopted so far within the CMEA framework “to make the collective currency [transferable rouble] convertible into the national currencies of the CMEA member countries and to make the national currencies mutually convertible” as requested by the following para. 18.
5. For a discussion of the future prospects of CMEA see: A. J. Smith, The Council of Mutual Economic Assistance in 1977: new economic power, new political perspectives and some old and new problems, *East European Economies Post-Helsinki*, pp. 152–73, Joint Economic Committee, US Congress, Washington DC, 1977; D. Lascelles, COMECON's future, in *COMECON: Progress and Prospects*, pp. 259–69, NATO Colloquium held 16–18 March, 1977, in Brussels; A. Zauberman, The East European economies, *Problems of Communism*, March–April 1978, pp. 55–70; G. Schiavone, *The Institutions of COMECON*, London (forthcoming).
6. On this point see, among others, T. Garvey, *Bones of Contention. An Enquiry into East–West Relations*, London, 1978.
7. For a thorough discussion of this subject see J. Valenta, Euro-communism and Eastern Europe, *Problems of Communism*, March–April 1978, pp. 41–54.
8. G. Schiavone, *The Institutions . . .*, (forthcoming).

9. For a detailed analysis see J. Haberstroh, Eastern Europe: growing energy problems, *East European Economies Post-Helsinki*, loc. cit., pp. 379–95; J. Bethkenhagen, Joint energy projects and their influence on future COMECON energy autarchy ambitions, *COMECON: Progress and Prospects*, loc. cit., pp. 37–57.
10. See the section relating to Projects of common Interest, in *Conference on Security and Cooperation in Europe, Final Act*, Cmnd 6198, HMSO, London, 1975.

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Economic Reforms in Eastern Europe and Prospects for the 1980s: A Summing Up

Hans-Jürgen Wagener

It is by no means an easy task to summarize sixteen scholarly papers and three days of intensive discussion by highly qualified experts on systemic developments of the six East European countries over the last twenty years or so and prospects for the coming decade. In this context special attention has been given to consumption and trade, energy and transport and the financial system. Pretending to reproduce the collected highlights of the three days' proceedings would mean to do injustice to all contributors. What I shall do is try to identify some common trends and problems that may be called the common experience and outlook for reforms in the region.

General dissatisfaction with the traditional or in the late 1950s somewhat streamlined "Stalinist" system of central planning and its growth performance was the motive for economic reforms in Eastern Europe and the Soviet Union. Typical of almost all of these reforms is the idea of a demonstrative and discrete change in the economic system manifesting itself in denominations like NÖS, NEM, etc., which evidently allude to Lenin's NEP of the twenties. These discrete steps and the accompanying campaigns have raised hopes and expectations with the top leadership, the managers and the population. The success of the reforms has to be measured against all these expectations with probably different outcomes.

It has been held that the reforms are the result of a political coalition. This would imply that revisions or complete reversions of the reforms in the 1970s have to be traced back to political changes, too. Certainly, it is true that any restructuring of the economic system in Eastern Europe needs a political backing. And the Czechoslovak events have shown what can happen to a socialist economic system after radical political changes. But on the whole, one gets the impression that the reforms of the 1960s as well as their revisions in the 1970s are the result of sound economic considerations in a stable political environment.

The central common feature of the reforms must be seen in the principle of accountability or the gradual dissociation of economic organisations and the state budget. Chosrascet, autogestiune, volle wirtschaftliche Rechnungsführung, etc., were meant to improve financial discipline and economic efficiency. These measures were supported by the idea of material incentives and the partial devolution of decision-making power. The term "decentralization", although often used, seems rather inappropriate, since it came to a concentration on the intermediate level: obedinenija, DSO, VVB, WOG, VHO, industrial centrals, or, as in Hungary, simply highly concentrated industrial firms, all testify to the tendency towards branch monopolization.

This tendency towards intermediate organisational concentration is universal throughout the region and the discussion tried to find out the logic behind it. Scale economies will be found less in the technical sphere but rather in the reduction of the central coordination task thus improving on macro-efficiency. As to micro-efficiency, doubts have been raised. But since some of the micro-inefficiencies typical for these systems are due to deficient central coordination—take, for instance, the supply problem—organisational concentration may have beneficial effects also in this respect. Problems can arise with dynamic efficiency, with innovation. Capitalist experience, however, is not very conclusive on this point. To take an example of the country where I come from: Philips accounts for almost 90 per cent of Dutch electro-technical industry and seems to be doing well. Here international competition plays an important role. We have heard that at least the Hungarians are concerned about it. Whether their system allows to instal international competition, remains to be seen. In the foreseeable future all these countries will promote exports but restrict imports because of their balance of payments situation.

The reformed system can only work if the economic units have clearly described property rights and degrees of freedom of action. Responsibility and accountability presupposes a certain decision making power. This brings about the problem of coordination and stabilization. And here some divergencies between the different systems are rooted. Western observers tend to favour implicitly or explicitly either optimal planning with a single criterion of optimization, preferentially profits, or a version of market socialism which is likewise profit oriented. Both system variants play a minor role in East European reform discussions, which is hard to understand for theoretically minded economists. But in practice the domain for feasible reforms is greater than the dichotomy of ideal types of theory.

It has been said that the reforms went into two directions:

- administrative reforms with a streamlined centralized system as result,

— systemic reforms with some sort of horizontally coordinated system as result.

There has been some talk on semantics. This also pertained to the question whether centrally planned systems can be streamlined, since the length of the information and command line will remain the same. It is beyond doubt, however, that central planning can be improved, which was the objective of the administrative reforms. One should also be careful with the qualification “market”. For in a monopolistic environment direct horizontal contacts do not necessarily imply a market but will rather result in bilateral contracts. Actually all countries have chosen elements from both solutions thus raising the question whether you are free to select from a menu of possible reform measures or have to take into account a certain consistency of the system.

Reforms were taken up under the assumption that any decentralization could only but improve the working of the system. Experience has shown that this is not true. By this we do not mean that reforms did not improve the working of the system where they have been initiated. We only mean that they brought about new and unexpected problems which led to revisions and even reversions of the reforms. In a way the reforms resemble the squaring of the circle: how not to lose detailed centralized control and simultaneously stimulate economic efficiency by granting greater autonomy to the economic units. Such an attempt is clearly inconsistent as long as more enterprise autonomy does not mean giving up some centralized property rights.

All attempts to decentralize decision-making power have to be interpreted as attempts to improve the system of central planning, not to get rid of it. This necessarily leads to a mixed system of double regulation or the coexistence of horizontal and vertical coordination mechanisms. It is the specific form of this compromise between plan and contract or plan and market that brings about the unexpected problems of the reforms.

First of all, in the vertical line of coordination the old system is still in effect with all its well-known deficiencies. It is perfectly correct to speak of state paternalism of which even such a decided reform as the Hungarian could not free the enterprises. The dissociation of the firms from the state budget is by no means perfect, close links persist mainly in the field of investment. Since ministries still possess important property rights, the old “ministerial chauvinism” is going on to work. The ministries nominate the highest echelons of management which very effectively makes managers observe the wishes of the ministries. In order to secure cheap means distributed by the ministries, managers renounce a great part of their newly won freedoms.

Whatever the mix of market and plan, there must be an unambiguous distribution of property rights. Otherwise complete disorder and disequilibrium will be the result. The managers are to know which decisions are to be carried out by them without alterations from above. The expectation

of random changes in plans and obligations will block any initiative. The stumbling stone of the reforms can be seen in the price system. Almost all revisions of reforms in the 1970s can be traced back to the fact that the price system in existence was unable to guide the firms correctly. Thus profits as only success indicator may be very attractive from a theoretical point of view. Without a nearly perfectly functioning price mechanism it almost inevitably will be supplemented by additional plan indicators. Profits never have been the sole success indicator, but all revisions of reforms led to a strengthening of central guidance.

The rationality of the price system has been improved by the process of planned inflation. High inflation rates have been mentioned which, however, refer to consumer prices only. They cannot be reduced, it was said, to the oil shock which, after all, was much less dramatic in Eastern Europe than it was in the West. But the question how we explain the rather new phenomenon of sizeable inflation in a socialist economy remained unanswered. Adjustments of relative prices which also in this system seem to be downwards inflexible in absolute terms and a reduction of an important financial disequilibrium could be mentioned. Not only at this point the colloquium was very productive in generating puzzles: much research will have to be done to answer all the questions that have remained open.

Loosening the grip of central planning means to create a stabilization problem. In the case of East European reforms it was not so much overall economic growth that got destabilized. The rapid decline of growth rates that took place in the Soviet Union was to a much lesser degree experienced in most of these countries. Much more serious were sectoral disequilibria and phenomena like overinvestment and overemployment (meaning full employment with a partial underutilization of labour) which are familiar from pre-reform times. In most countries the immediate reaction was recentralization. As a matter of fact, planners tend to change the system instead of the parameters in case of unsatisfactory results with parametric planning.

The example of overinvestment may indicate that this is not the most effective remedy in the long run. The widespread phenomenon of overinvestment is due to the lack of a budget restriction. More than 50 per cent of investment outlays are financed by the state budget. Firms are not economically responsible for such investment decisions and try by all means to get into the central investment schemes. Irrational demands and the famous investment cycle are the outcome. Firm central control is likely to guarantee an overall equilibrium and perhaps even some basic proportionalities. But it does not improve on the firms' behaviour. So on the micro-level means and resources will be spoiled again. The rapid decline of investment growth in the last few years—which the colloquium took great

pains to explain—may testify to planners' inclination to counteract this behaviour by drastic cuts in the allocated means in order to stimulate a more effective utilization.

If problems arise, central management and control or a centralized handling of these problems is the most likely policy of central planners. However, past experience has made visible the efficiency costs of such a policy. So, we do not expect that recentralization has been the last word in the history of East European reforms. All country reports have indicated for the most recent years new steps in the direction of designing again a better streamlined body for the system of central planning and management.

Some Western observers tend to see in the Hungarian model the panacea for all East European ills. This might be an illusion in that the scope of the Hungarian reforms perhaps is overestimated and the specific Hungarian characteristics in it are underestimated. Hungary's industry is extremely concentrated in firms as well as locally, thus facilitating direct links and contractarian solutions without weakening too much central control. Besides, Hungary has the great advantage of a comparatively productive agricultural sector.

Turning now to the prospects of the 1980s, they seem to be rather bleak on the whole. However, the economist has not been born yet, I think, who sees the future in bright colours. The fact that the objectives for the now ending five year plan period will not be met to a great extent should not be overinterpreted. If economic performance does not live up to the plans—a quite well-known feature in socialist planning—it is not necessarily the economic system or the economic units that must be blamed for having failed to take advantage of all possibilities. The plans may have been overambitious in relation to objective possibilities. A steady growth of 3 or 4 per cent per annum would be all many a Western politician could wish. And a comparison of the development of the standard of living, for instance, in Great Britain and the DDR would be quite illustrative even if these are extreme examples.

Clearly, the economic problems of Eastern Europe are less to be found in aggregate production although a certain slow-down of growth rates seems to annoy the political leadership. In this respect the prospects of the Soviet Union are to be judged much less favourable. The economic problems are rather to be found in structural disequilibria and shortages: energy, transport, construction materials, agriculture, technology. Evidently, if the actual rate of growth and overall performance of the economic system is less dependent upon aggregate demand or aggregate supply of the factors of production but rather upon some marginal sectors of the economy, this becomes mainly a problem of the system of planning and management. Hence the great emphasis this colloquium has laid upon economic reforms.

Of course, we have learned about some supply problems, namely labour

shortages and the universal energy problem. As far as labour is concerned, however, most countries will come during the next decade into a situation in which the DDR has lived for years and has managed not too badly. In such a situation overemployment will become especially costly. So we may expect measures to reduce this rather system specific phenomenon. Any changes in the system of labour management—as might be carried out in Czechoslovakia, Hungary and the DDR—must be regarded as radical reforms. For the guarantee of the working place, not only of work, has been seen as one of the cornerstones of socialism. It would carry us too far to analyse here the question whether unemployment or the possibility of unemployment is a necessary prerequisite of efficiency. But certainly the much needed structural changes make a restructuring of employment necessary. In a situation of moderate growth this means a more flexible system of labour management.

The energy problem is composed of two parts, a supply problem and a price problem. The discussants were somewhat undecided as to which of the two will be the more serious one. Despite all indications in this direction, it seems to be difficult to tell whether there will be a supply problem in absolute terms. But there can be no doubt about the seriousness of the price problem. It has to be mentioned, however, that Eastern Europe is in a much more advantageous situation than Western Europe. It is to a much lesser degree dependent on oil and because of CMEA price contracts it pays presently only half the world market price for it. It remains to be seen whether the socialist economics will take advantage of this greater degree of stability and use the prolonged transition period to the high price regime for the necessary adaptations. It has been argued that they actually waited till the changes really were felt to adjust their policy. This argument was also used to explain for the low growth in investment during the last years. For with new relative prices the old investment blueprints have become obsolete and new ones are not at hand.

The situation and plans of Czechoslovakia may be considered typical of more or less all Eastern European countries. While in 1975 almost 100 per cent of the increase in domestic energy consumption had to be imported, plans for 1985 envisage this percentage to fall to less than 25 per cent. This will have to be done by import substitution—nuclear power has to be mentioned in this context but also coal and lignite—and by energy saving. The success of this policy is vital for the economic situation of these countries. If it is not the price of energy that will induce innovative changes at the firm level, this problem lays a heavy burden upon the system of planning and management.

Speaking of energy prices leads us immediately to the question of terms of trade. Eastern Europe has been hit from two sides:

- the relative trading position of the Soviet Union has improved mainly because of price changes for oil and raw materials,
- and the prices of Western machinery exports have gone up in reaction to the oil and raw material price hausse much more rapidly, than East European export prices.

It is generally held, also by East European policy makers, that this situation will continue during the 1980s. In East–West trade, as far as it is not carried out in energy and raw materials, that may be true. For East exports rather soft goods and has to compete with South or West markets. In the case of CMEA trade some doubts are in place. Why should East European countries not succeed in raising their export prices if the world market prices have gone up? We have to mention in the margin that the wealth transfer to the Soviet Union cannot be compared to the monopoly profits of the OPEC since Soviet oil production costs are much higher than in the Middle East. It may turn out that Eastern Europe needs not any more to contribute directly to the investment costs for oil and raw material production which was evidently necessary at the lower prices.

Seen from this point of view the outlook for East–West trade is all but rosy. We have heard that East European countries intend to pay back part of the debts accumulated during the last decade. With deteriorating terms of trade, moderate or low growth in the West and increasing competition from South this will be a hard job. In other words—national income to be used internally will grow more slowly than national product. For countries like Poland and Bulgaria this effect must be sizeable. It is clear that the countries of the region will try to reach agreements to alleviate their situation to a certain degree. Such could be new credit agreements, restructuring of debts, but also cooperation agreements (including trilateral cooperation), joint ventures and the like. Policy changes which have a positive effect upon hard earnings can be expected. But the foreign indebtedness of the region is not that serious to overthrow the whole system of planning and management in order to be able to pay back debts.

Returning to the internal situation, it is clear that moderate rates of national income growth imply moderate rates of growth for investment and consumption. Hearing about the high shares of investment in GNP and about phenomena like overinvestment, the East-European consumer may be inclined to argue that now it should be his turn and that the moderate but steady improvement of his standard of living in the past should be continued in the years to come. However, the demands on investment seem to be enormous:

- in the energy sector we have heard about the necessity of import substitution and energy saving,

- the transport system has long been neglected: the railway system needs to be renewed, roads must be constructed, water transport should be developed,
- almost all these economies are still irritable by bad harvests: the productivity of agriculture has to be improved and stabilized,
- products for foreign markets must be made competitive,
- last but not least mention must be made of the military burden which in the present international situation certainly will not go down.

It is true that, except for the first and the last, these investments some time will come to benefit the East European consumer, as should the enormous investment outlays of the past. In the meantime it seems to be advisable for him, however, not to have too high expectations for the coming decade. His situation will continue to improve but it will do so very slowly. In other words, we do not expect that the rate of growth of investment will remain significantly below the rate of GNP growth for a longer period.

Taking all the problems together which Eastern Europe is facing for the decade to come, it is hard to tell whether a more centralized system of planning and management is likely to solve them better than a more market-type system. Central planning is mainly adapted to heroic tasks: industrialisation, winning a war, immediate post-war reconstruction. But it is difficult to make of the problems of daily economic life heroic tasks. Success here is not measured in terms of the one and only achievement but in terms of cost and benefit. A system is needed therefore which allows to account for these costs and benefits more accurately than central planning old style seems to be able to do. However, there are indications that the Soviet and East European leadership again tends to look at the economic problems of the 1980s as a heroic challenge of the socialist system to be mastered by the usual methods: central planning and the mobilization of the masses.

The masses may not any more be susceptible for such a policy, certainly not if the prospects for mass consumption are rather dim. After all, even dialectical materialists have ordinary materialistic wants. There has been some talk about unrest and revolution during the colloquium. I would think it premature, however, to expect a general legitimization crisis of the system and its leadership. There are quite a lot of possibilities for change in the fields of working conditions, partial democratization, co-determination, etc. Such measures need not entail reforms of the system of planning and management as a whole. It has been rightly stressed that reforms are rather to be expected in the field of human capital and internal organization.

In general system reforms are envisaged, what we should not exclude from the outset, they may come more stepwise and less dramatically than in the 1960s. For the leadership must avoid everything that raises high expectations

which, if not fulfilled, will have a demotivating and destabilizing effect. Reforms thus probably will mean in the future marginal steps towards and improved system of planning and management. Continuously implemented also such a policy can take the system quite far.

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