Cyrus Ardalan

Workers' Self-Management and Planning: The Yugoslav Case

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Summary. The new constitution that Yugoslavia adopted in 1974 provides an elaborate blueprint for a workers’ self-managed economy. One feature of the constitutional changes is that, in addition to continuing to strengthen the role of workers in decision-making, they strengthen the ability for macroeconomic co-ordination and, specifically, the role of planning. To reconcile the seemingly conflicting objectives of decentralizing and co-ordinating decision-making, a novel form of participative planning was introduced. The new system of self-management planning, although having elements of central planning and indicative planning, is radically different from both. This paper, after briefly reviewing the evolution of planning in Yugoslavia, analyses the rules, procedures and theoretical premises of the new system of planning codified in 1976.

Planning in Yugoslavia has undergone considerable changes in the three decades since the Second World War. These changes reflect the gradual modification of the role of the market: they also reflect the evolution of thought regarding the compatibility of planning and the market with the objective of developing a workers’ self-managed economic system. The debate has centred on how to achieve efficiency in economic management and simultaneously to establish an effective workers’ self-managed economy. But the need to reconcile the choice of the system with the political realities of Yugoslavia has been equally important. Indeed the pluralistic character of Yugoslav society has been a principal factor in determining the type of planning that would be acceptable. This paper starts with a brief review of the evolution of planning in Yugoslavia between 1947 and 1975. It then describes the planning procedures introduced for the period from 1976 onward. After setting forth the contours of a theory of self-management planning, the paper concludes with a formulation and assessment of the theoretical underpinnings of the new system.


The institutional changes in Yugoslavia constitute an evolutionary process, not a set of unrelated responses. Moreover, the evolutionary process has been dialectical: institutional changes have impinged on the performance of the economy, which in turn prompted further institutional changes. Each heralded important new changes in the system of planning and the degree of ‘economic plannedness’. Table 1 summarizes these changes by using a taxonomic approach that characterizes planning by its essential features. The first planning system was characterized by its detail, comprehensiveness, low degree of participation by agents of planning in plan formulation and strong commitment to plan implementation. As the system

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evolved between 1950 and 1974 plan detail and coverage were gradually reduced, as was the commitment to plan implementation. These changes reflected the growing market orientation of the economy, the growing decentralization of decision-making and the increasing worker control in the management of their own affairs. The 1965 reforms brought about a sharp shift in this direction. Planning could not be readily reconciled with the thrust of the new economic order. It consequently became essentially indicative, playing only a limited role in the allocation of resources. The striking feature of self-management planning is that, despite being comprehensive and detailed with a strong commitment to implementation, it is conceived on the basis of market relations and formulated with wide participation by all economic agents in the country. It represents an attempt to reconcile planning with the market and with the principles of workers' self-management. It strives for a detailed ex ante coordination over the medium term, based on a grass-root consensus, with a legal and moral commitment to plan implementation. The new planning model is not only new for Yugoslavia; it has no apparent parallels in other countries.

(a) Central planning, 1947-1952

Yugoslavia's first system in planning was an extreme form of central planning based closely on the Soviet model. The law on planning was passed in 1946, and the first 5-yr plan period started in 1947. All decisions were to emanate from the Federal Planning Commission with little discretion or feedback from production units. In Kidric's words, enterprises:

had virtually nothing to plan, everything being planned from above. The enterprise collaborated it is true in the elaboration of operational plans that these plans depended directly on the basic plan which were dictated from above and in great detail, by the state apparatus, that is to say by the bureaucrats.

The planning system included provisions for 10-day plans and directly controlled production of some 13,200 commodities. The basic objectives of the plan were to overcome the general economic and technical backwardness of the economy; the growth of consumption was accorded a low priority. The usefulness of central planning, given Yugoslavia's low level of development, may not have spent itself completely when it was decided in 1950 to abandon central planning. The break with the Communist Information Bureau (Cominform) in 1948, however, initiated a search for a new system of economic management that would entirely disregard the Soviet model of planning and be uniquely Yugoslav.

(b) Global balance planning, 1956-1961

After having discarded central planning and before the adoption of a new system in 1956, the economy was managed on an ad hoc basis through a system of annual plans. The main objective during this period was to finish projects already started during the last plan period. During this creative phase of redefining political premises, a return to the original tenets of Marxism led to the conceptualization of two guiding principles for the evolution of the system: 'self-management' by the producers and 'socialist commodity production'. The 1950 law on the management of government enterprises and economic associations by workers' collectives introduced the principle of self-management to the system. It was the first step in providing workers with participation in the management of their work units. In practice, however, workers' councils remained for some time subordinate to managers, who as a rule were appointed by and responsible to the state. The principle of socialist commodity production was first propagated by Kidric as a model of decentralized market socialism. It provided the ideological rationale for embracing the market mechanism. By 1953 the new principles had firmly taken root. The 1953 constitution, in contrast with the 1941 constitution, stated that social ownership of the means of production and the self-government of working people were to constitute the basis of Yugoslavia's social and political system.

Yugoslavia adopted a new system of planning in 1956. The 1951 law on the planned arrangement of the economy foreshadowed its adoption. Under that law the Federal Planning Commission became the Federal Planning Bureau, and 'state planning' became 'social planning' with increased consultation and participation. Central planning was to be the planning of basic proportions: notably the rate of accumulation, the distribution of investment resources through the federal General Investment Fund and the share of collective consumption. These basic proportions were then used by the Federal Planning Bureau to forecast sectoral growth rates. Such 'fundamental' planning was the responsibility of the state;
Table 1  Evolution of planning in post war Yugoslavia: a taxonomic approach

<table>
<thead>
<tr>
<th></th>
<th>Central planning</th>
<th>Global balancing planning</th>
<th>Indicative planning</th>
<th>Self-management planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Periodicity of plan</td>
<td>Short-term</td>
<td>Medium-term</td>
<td>Medium-term</td>
<td>Medium-term</td>
</tr>
<tr>
<td>Scope of plan</td>
<td>Entire economy</td>
<td>Macroeconomic aggregates</td>
<td>Macroeconomic aggregates</td>
<td>Intere economy</td>
</tr>
<tr>
<td>Plan coverage of investment</td>
<td>Complete</td>
<td>Complete</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Plan coverage of hotel, raw material</td>
<td>Complete</td>
<td>None</td>
<td>None</td>
<td>High for raw materials and intermediate goods</td>
</tr>
<tr>
<td>Level of detail in plan</td>
<td>Very specific all sectors</td>
<td>Aggregative</td>
<td>Highly aggregative</td>
<td>Specific for priority sectors</td>
</tr>
<tr>
<td>Constructive vs. the plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extent of participation by enterprises</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Extent of participation by enterprises in the construction of the investment plan</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Kind of participation by enterprises</td>
<td>Provision of information</td>
<td>Provision of information</td>
<td>None</td>
<td>Authority to initiate proposals</td>
</tr>
<tr>
<td>Plan implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation</td>
<td>Compulsory for socio-political communities and enterprises</td>
<td>Compuulsory for socio-political communities</td>
<td>Compulsory for socio-political communities</td>
<td>Compulsory for socio-political communities and enterprises</td>
</tr>
<tr>
<td>Means of implementation</td>
<td>Directives</td>
<td>Directives</td>
<td>Manipulation</td>
<td>Social compacts and self-management agreements, or, if abrogated, social and economic penalties</td>
</tr>
<tr>
<td>Number and detail of directives or parameters</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Centre’s plan adjustment mechanisms</td>
<td>Strong</td>
<td>Strong</td>
<td>Weak</td>
<td>Weak</td>
</tr>
</tbody>
</table>


Note: Unless otherwise indicated, planning is that by socio-political communities, that is, by governmental bodies. Such planning integrates the planning by enterprises to varying degrees.
enterprises were to have plans based on these basic proportions and on market signals. To facilitate the use of the market, steps were taken to create a unified price structure and adopt a more realistic exchange rate. The introduction of the new planning system coincided with increased emphasis on the growth of consumption. Yugoslavia's economic performance under the plan for 1957-1961 was successful in relation to the objectives set: all objectives were achieved in 4 yr.

(c) Transition, 1961-1965

The success of the second 5-yr plan brought with it a drive for further changes in the system of economic management. The notion of self-management, initially very general, had slowly been filtering from the realm of vision into practice. The scope of central decision-making had gradually declined; the autonomy of enterprises had increased. In resource mobilization and allocation the former continued to dominate; in day-to-day operations the latter gradually gained ground. By 1960 the practical questions about the respective roles of enterprises and the state, of the market and the plan, had increasingly become focal issues. In 1961 three reform measures were introduced to increase considerably the role of the market. Yugoslavia opened its economy to world markets, reorganized its financial system and relaxed controls for the determination of wages. The preparation of reform measures nevertheless was insufficient, their implementation, too hasty.

The ensuing conditions increasingly necessitated ad hoc policy measures, first to raise the level of economic activity, then to control inflation. Although annual planning continued, the medium-term plan for 1961-1965 had to be abandoned in 1963. The economic difficulties of the period instigated a national debate over whether the solution lay in further liberalization or in a return to greater central control. Parallel to these discussions, and to the attempt to arrive at a viable consensus, a new constitution was promulgated in 1963. A 7-yr plan for 1964-1970 was prepared as well, but it had to be abandoned when major economic reforms further liberalized the system in 1965. Thus, between 1961 and 1965, there was no effective medium-term plan. The changes to the system, their repercussions on the economy and the resulting need for short-term management precluded any attempt at medium-term planning. The key innovation of the period was the abandoning of the General Investment Fund between 1963 and 1965. It partly reflected an economic decision to encourage a more rational distribution of investment. But it may have also been a reflection of the increasing difficulty of achieving a consensus on the regional and sectoral distribution of investible funds and on national objectives in general. Furthermore the system of investment planning was difficult to reconcile with growing emphasis on workers' self-management and the use of the market.

(d) 'Indicative' planning, 1965-1975

The 1965 reforms gave considerably greater substance to workers' self-management by reducing the control exercised by state organs on enterprise decision-making. Planning in Yugoslavia became essentially indicative. Plans were to provide forecasts, establish a basis for rational decision-making by enterprises and set forth the objectives to be pursued by government through non-administrative instruments. The social plans prepared by the federal and republican planning institutes were indicative in the sense that they did not impose legal or mandatory obligations on enterprises and banks in the social sector. The only compulsory aspect of social plans was that, when accepted, they became directives for socio-political communities, the Yugoslav term for political units. With the exception of the Federal Fund for the less developed regions, investment decision-making was passed on to the market through the establishment of self-managed all-purpose banks.

The basic premise of the indicative system of management was that enterprises, by maximizing their income, would further the general interest. Two elements were required to make that system operate efficiently: a stable macroeconomic environment for individual producers; and appropriate market signals. This new system of economic management did not live up to Yugoslav expectations: the economic performance was disappointing; emerging social and political developments threatened the legitimacy of workers' self-management and socialism. After 1965 the economy exhibited considerable cyclical behaviour, with periodic balance-of-payments difficulties, stop-go policies and growing inflationary pressure. In addition, structural imbalances appeared. Although it is difficult to speculate about causes, an important factor seems to have been the combination of an imperfect market with instruments of economic policy that were
inadequate to facilitate the smooth management of the economy. An economy at the level of Yugoslavia's development still required some form of long-term macroeconomic strategy. Indicative planning and the use of the market could have provided for such a strategy, if the instruments of economic policy at the disposal of the state were sufficiently strong and precise. Yet one of the principal effects of the growth of self-management was the weakening of the conventional instruments of economic policy available to the state. Consequently, this considerable reduction in the scope of available instruments imposed a dilemma on the economy: too few instruments to deal with too many objectives.

2. CONCEPTS AND PROCEDURES OF SELF-MANAGEMENT PLANNING

A number of constitutional amendments were passed in 1971, leading eventually to a new constitution in 1976. The new constitution has had far-reaching effects by changing nearly all legislation affecting the economic system. Of particular importance has been the introduction of a new system of planning. A number of motives underlie this. One factor has been the perceived need to strengthen macroeconomic management of the economy. A second was a revival of confidence in the need for planning, which gradually emerged in the 1970s. Indeed the view now is generally held that effective planning must complement self-management if Yugoslavia is to avoid economic chaos. The manner in which new instruments of economic policy, introduced to strengthen macroeconomic management, have been reconciled with promises of workers' self-management is of particular interest. The Yugoslavs have tried to introduce control through workers' self-managed instruments based on widespread participation of workers, rather than imposing control through state intervention. The system of self-management planning as it stands is a vivid example of this.

The new system of planning foreseen in the 1974 constitution and codified in the 1976 law on planning, is radically different from its predecessors. Unlike the previous system based on plans prepared by the republican and federal planning institutes, the new system requires the complete and active participation of all decision-makers. And whereas the previous system was largely indicative it was mandatory only for socio-political communities. Self-management planning involves legal obligations that are binding for all decision-makers. Although the 1976 1980 plan was formulated only in part on the basis of the rules and procedures outlined in subsequent paragraphs, the 1981 1985 plan is expected to follow this formulation closely.

The 1976 law on planning outlines the basic principles of the new system. Although the law provides a detailed catalogue of the procedures at various levels of planning, it does not indicate any hierarchy in planning. The basic characteristics of self-management planning can be summarized as follows:

(i) Planning must involve all planning agents. That is, all organizations that are affected by the decisions to be made.

(ii) Planning is to be simultaneously carried out by all planning agents at all levels. Microeconomic planning within and among enterprises is referred to as self-management planning. Macroeconomic planning within and among governmental bodies is referred to as social planning. Planning is thus conducted at the level of the basic organizations of associated labour (TOSALs), the smallest legally defined economic unit producing a marketable output: it continues up to governmental bodies at the federal level.

(iii) There is an obligatory exchange of information by all economic units on their plans and current economic situation based on a predetermined list of indicators.

(iv) Co-ordination of individual plans is legally required for all sectors designated as priority sectors and encouraged for those designated as non-priority sectors. The chambers of the economy act as a forum for securing agreements on the adoption of plans and their implementation. Trade unions participate in the planning of income distribution.

(v) The co-ordinated plans are codified into legally binding agreements. These are social compacts, which codify agreements on general policy and priorities, and self-management agreements, which stipulate not only agreements between enterprises on specific obligations and undertakings, but also penalties for failure to fulfill obligations.

(vi) All affected parties must be consulted and their agreement secured before the conclusion of a self-management agreement or social compact.

(vii) The basic plan is the medium-term plan. There is, in addition, a long-term plan to review long-term objectives and structural change.

(viii) The planning process is a continual one, with annual assessments of the progress and revision of the plans of respective economic units. The cycle for the next medium-term plan, 1981-1985, started in 1979.

The planning process starts with the passage of a law on the preparation of the plan. This document outlines the work programme for the preparation of the plan, including not only the timetable of events and the plan period, but
also a list of maximum indicators that must be prepared and a common method to which all units engaged in the planning process must adhere.

Planning then commences simultaneously at all levels. The plans of the socio-political communities, or "social plans" initially provide "framework" plans outlining their perception of how the economy should evolve at a fairly aggregate macroeconomic level. Conversely, enterprises identify their own objectives and capabilities. The process of co-ordination is thus an exercise in ensuring consistency between the individual goals and objectives of enterprises and more macroeconomic national considerations. The process is often called "counter planning" and is viewed not necessarily as a process of resolving conflicts but as a process whereby the same basic units, consisting of workers and their representatives, are forced to view their development objectives at differing levels of aggregation. By doing so, the various work organizations are obliged to consider broader objectives and to appreciate the trade-offs involved and the need to assume responsibility for decisions taken. One of the main features of the new system is the large mandatory exchange of comparable and consistently compiled information between enterprises (based on the minimum list of indicators discussed earlier). This will help to increase greatly the transparency of the economy and make possible the application of objective criteria in decision-making.

To facilitate this process of "counter planning", which would become unmanageable if all economic units had to be simultaneously involved, large "economic complexes" of enterprises are created on the basis of their vertical and horizontal linkages (input output linkages). Attempts are then made to co-ordinate supply and demand within and between complexes. Planning is thus reduced to a system of "network planning" conducted at different levels by delegates of the parties involved. The principal vehicles for co-ordination are the chapters of the economy to which all enterprises belong. Enterprises are encouraged to make proposals on the basis of the viability of projects. In cases of disagreement the parties concerned are encouraged to submit their individual project proposals for arbitration. The chamber cannot legally block any investment proposal. If the enterprise cannot finance the project from its own resources, however, the chamber's evaluation of the project can be important in determining the enterprise's access to external funds.

The process of co-ordination leads to the conclusion of two types of legally binding instrument. Social compacts regulate broad economic issues and policies and provide the framework for more precise operationally orientated obligations codified in self-management agreements. These self-management agreements regulate all relations within and between economic units such as medium- and long-term deliveries, transfer prices, criteria for distribution of income and the use of investible resources. Self-management agreements are mandatory for the priority sector. If the parties fail to reach agreement by the specified date, governmental bodies can introduce temporary measures until agreement is reached.

The actual plans adopted at the republican and ultimately at the federal level are based on the social compacts and self-management agreements reached by the various economic units. In this sense the planning system can be viewed as planning from below. In reality, however, the system is best viewed as a non-hierarchical system, because the initial stages of planning are conducted at all levels simultaneously.

3. CONTOURS OF A THEORY OF SELF-MANAGEMENT PLANNING

The concept of self-management planning propagated in Yugoslavia provides a new system of planning both in name and substance. It provides a genuine attempt to develop a new system that would avoid the pitfalls of central planning and circumvent some of the acknowledged shortcomings of the market mechanism in the co-ordination and synchronization of economic activity, particularly with respect to intertemporal resource allocation in a developing country.

The underlying mechanism of self-management planning nevertheless bears considerable resemblance blurred more by differences in terminology than in conceptualization to theoretical concepts developed in the neo-classical literature, concepts about the conditions necessary for the efficient operation of the competitive general equilibrium model for resource allocations, as it relates to allocation over time and under conditions of uncertainty. A brief review of that literature provides a useful as well as a better understanding of its theoretical implications.

Start with an abstract vision of the world. The restrictive assumptions of this abstract vision will be relaxed in due course, but they
are essential to highlight the basic features of the model:

(i) There is perfect competition in both output and factor markets.
(ii) There are no external effects, indivisibilities, monopolistic tendencies, increasing returns to scale or income distribution problems.
(iii) The time horizon runs at the end of the terminal year of the plan.
(iv) There is no change in the composition of economic agents (decision-makers) operating in the market.
(v) There is complete participation by all economic agents.
(vi) The only uncertainty is market uncertainty arising from inadequate information about the behaviour of other economic agents. Other events can be predicted with certainty.

Next consider the behaviour of the previously stylized economy. Under such circumstances, the problem of intertemporal resource allocation (i.e. over the plan period) can be reduced to one of determining the appropriate vector of future prices.

Failure to determine the appropriate vector of prices will generally result in unfulfilled expectations, adjusted production and consumption plans, and the re-entry of economic agents into the market with different price vectors. There will be economic loss at each stage: there is no guarantee that there will be a convergence towards equilibrium particularly in a monetized economy. The economic waste caused by the market uncertainty associated with this mechanism can be alleviated by establishing forward markets for all commodities. Theoretically, all agents could solve negotiations ('haggling') establish an equilibrium vector of present and future prices. The forward markets serve to bring together the specialized knowledge of producers (supply) and consumers (demand) whereby providing all agents with perfect information on prices, their future incomes and the level of consumption for every commodity. Because expectations are fully satisfied, supply equals demand, and marginal rates of substitution equal marginal rates of transformation. Equilibrium can be alternatively characterized by two sets of relations:

(i) Forward markets If only forward markets exist (with no government or arbitrator), economic agents enter into binding legal obligations through the forward market mechanisms.
(ii) Government If only a government exists (with no forward market) it can iteratively determine the vector of prices and post these. (This could be called the 'indicative plan'.)

The principles of self-management planning bear, of course, a clear resemblance to the foregoing relations. The co-ordination of plans in self-management planning corresponds to ‘negotiations’ in the forward market. Social compacts and self-management agreements on deliveries and criteria for transfer prices are similar to the legal obligations that exist in a forward market. The tedious process of simultaneous multilevel planning, with horizontal and vertical co-ordination, is in essence an attempt to determine an implicit vector of equilibrium prices and deliveries to all producers and consumers. The type of procedures existing in self-management planning can best be termed ‘quasi-forward markets’. Like forward markets, they impose legally binding commitments. Unlike forward markets, decision-making is achieved through negotiations, and legally binding obligations are undertaken only after all parties have reached a compromise. The quasi-forward markets seek in principle to eliminate market uncertainty and reduce risk by pooling limited knowledge. The potential gain in allocative efficiency over a competitive market system is evident. Capacities needed for structural reasons can be created in time and be appropriately tailored to demand, thus eliminating the pitfalls of bottlenecks and excess capacity. Of course, the gains in comparison with a market economy or a centrally planned economy are potential. The degree to which they are realised will depend entirely upon the efficiency and rationality with which planning is organized and carried out. By necessity a good deal of learning by doing must be invested over a long period before that potential can be fully exploited.

Theoretically, if forward markets are to result in an optimal intertemporal allocations of resources, the participation of all economic agents is necessary. In practice this would be a formidable undertaking. A logical shortcut would be to adopt a system of group representation. The group representatives would then gather together at different levels and present the participatory decisions of their constituents. The negotiations and operation of the forward market would then proceed.

In Yugoslavia, extensive participation is ensured through the creation of basic organizations of associated labour (BOALs). The obligation to plan by all BOALs ensures that the smallest units with a marketable output directly participate in planning and decision-making. Thus all units can reveal their individual preferences, and all commodities must bear explicit (even if accounting) prices. At the same time it is recognized that planning cannot be efficiently conducted by 50,000 or more indi-
vidual units. Consequently there is a need to integrate BOALs into larger units. The constitution prescribes integration into horizontally or vertically linked units. This provides large blocks within which planning can be more efficiently conducted. Furthermore, self-management planning in Yugoslavia is based on such a system: the new constitution has introduced a step-wise system of delegates to represent the views of their constituents and to be directly accountable to them for every decision.

The Yugoslav system of planning is similar to Meade’s notion of ‘network planning’. To overcome the practical difficulties of undertaking a comprehensive plan, the central government starts with a ‘framework plan’, on the basis of which enterprises and local authorities make their own plans. There follows an adjustment process with feedback loops until a consistent set of plans is available at all levels. The same procedure can be applied regionally. As Meade notes, this is not commonly undertaken.

It is his feature of decentralized formal and informal indicative planning, sets of alternative sub-plans, all based upon more or less similar alternative environmental paths, which at the moment is conspicuous by its absence.

The actual procedures for co-ordination have been left extremely vague and appear on the surface of plans to be formidable. However, an interesting model of how the system of planning might operate in practice can be seen in Albin. The problem for Albin is one of devising a specific communication system between the microeconomic units, which plan for their own purposes, and the planning authorities, which have their own macroeconomic targets, to achieve a consistent co-ordinated plan as close as possible to the frontier of production possibilities. Albin finds his answer in the logic of partnership bidding in contract bridge. Partners in a game of contract bridge seek the optimum contract for the combined partnership resources by exchanging information on card holdings and their relative strengths. High-level contracts pay higher premiums but carry greater risk because they are more difficult to fulfil.

In the same way, Albin suggests that microeconomic units and planning authorities exchange information on production possibilities through a process of bidding and in this way move the economy closer to its production-possibility frontier. To do so a list of bidding variables has to be agreed upon, that is, a ‘language’ must be devised. These will be variables that play a significant role in the objective and forecasting function of the microeconomic unit. The planners must have at their disposal a forecasting (Brookings-type) model and a consistency (Leontief input output) model to check the feasibility of the projections. The first step in the process is an exchange of background information on the current setting, including the most likely range of growth rates. Bidding then starts at a point well within the target production-possibility frontier. This has two advantages: first, there is greater certainty at such a point (it is close to the realized present situation); second, there is a strong incentive for partners to exchange information and to raise the level of bidding because all parties are likely to gain.

Bidding starts by an exchange of information using the ‘limited vocabulary’ agreed upon. The microeconomic unit may use an elaborate economic demand forecasting model. Planners need not know the precise structure of the model but only its general form and behaviour. Iterations ensure. Each new bid must be higher than the last, otherwise the party must pass, keeping to the previous bid. Any bid represents a firm contract. All bidding has to be terminated by a predetermined date. Whether there will be convergence to an economic optimum is not clear. But this may not be so serious because the production-possibility frontier may in reality be viewed as a nest of frontiers. The parallels between the planning priorities, each corresponding to a particular level of uncertainty rather than a single frontier. The parallels between the planning procedures proposed by Albin and those under the system of self-management planning are evident. As already noted, planning starts with an agreement on the information to be provided and is followed by a general exchange of data and an interactive process to reach a co-ordinated plan.

4. SELF-MANAGEMENT PLANNING: AN ASSFSSMENT

Considered in the light of the stylized economy outlined earlier, self-management planning is logically appealing and bears great promise. First, self-management planning provides an "ex ante" general equilibrium solution which, in principle, avoids the uncertain progress of the uncontrolled market's trial-and-error adjustment toward a general equilibrium. This solution enables the elimination of market uncertainty associated with the inadequate knowledge of economic agents about the plans of other agents. In this respect self-management planning is similar to indicative planning and
central planning. But unlike indicative planning, the plan involves legally binding obligations; in this respect it is similar to central planning. But, unlike central planning and like indicative planning, the plan is not imposed from above. Its formulation is based on the participation of all economic agents in the economy and therefore avoids the pitfalls of having to determine the vector of prices through some mathematical model or through some exogenously given set of objectives unrelated to consumer sovereignty. Mathematical models have been and remain notoriously inadequate representations of the economy: the neglect of consumer sovereignty violates the basic premises of welfare maximization and Pareto optimality. Yet by eliminating market uncertainty it becomes possible to avoid duplication or lags in the provision of capacity, which would lead to waste or bottlenecks. This is essentially what Scitovsky calls 'pecuniary external economies', which he considers to be particularly serious in the developing countries undergoing major structural transformations. Dorfman et al. have shown that static technical efficiency is a necessary but not sufficient condition for reaching an efficient growth path with a given technology and consumption profile over time. For this to be achieved, producers must be informed about current prices and about the current rates of price change or future prices.

Second, this attempt to attain a simultaneous general-equilibrium solution induces an exhaustive exchange of information between agents on their preferences and production possibilities, thereby greatly increasing the transparency of the economy. The legal obligation for an unrestricted exchange of information is emphasized as a principal element in the new 5-yr plan in the Constitution (Article 69), the Law on Planning (Article 22) and in the draft manual on self-management planning (as a legally binding minimum set of indicators that must be made available by all economic units).

The efficiency of the market mechanism in handling and processing vast amounts of information have been extensively analysed. This has been further clarified by modern information theory. The shortcomings of the market mechanism for the transmission of knowledge and information are also well documented. Information has the basic features of a public good, indivisible and in most cases inappropriable, thereby leading to market failure and suboptimal resource allocation. As a result, we observe only a limited and imperfect market for information, no unit of account, and the paradox that the true value of knowledge can be known only if the purchaser already had the information. Under a private enterprise system, the free flow of information could considerably weaken the foundation of individual enterprises ('animal spirit') or create instability. The nature of a true command economy precludes the foregoing problem. The state imposes its own vision, and the rest must obey. If the state lacks sufficient information, it demands it. In a socialist self-management economy, however, the situation is different. There is no capitalistic class whose sole purpose is to bear risk. Property is socially owned, and all economic rent should in principle belong to society, not to any one group. These essentially are the ground rules in Yugoslavia. Thus one significant advantage of such a system is that it can provide for the dissemination of information as a public good and potentially increase the efficiency of the system.

The new planning system also has positive aspects from a political viewpoint. First, the planning system is now reconciled with the basic premises of a workers' self-managed economy. In particular, the role of state organs is considerably reduced. They act principally as arbiters of last resort and as forums for presenting a macroeconomic perspective of future development. Second, the new system offers an opportunity for all interests to be represented and a forum for choosing different means of providing the same end or choosing between different ends. The legal obligation of parties to reach agreement places responsibility with those involved, and with the state, only and for such time as direct agreement cannot be reached. For another thing, self-management planning will ameliorate the problems Yugoslavia faces in co-ordinating the development of regions. The pluralistic character of Yugoslav society has always complicated planning, which is based on a monistic view of objectives. The new system of planning provides an opportunity for the representation of all interests and a forum for choosing from among different means and different ends.

In contrast with these potential strengths, the new system of planning has some potential weaknesses. First, although the new planning system provides a framework for decision-making, it fails to specify the way in which decisions are actually reached. In the competitive general-equilibrium model, individual producers and consumers express their preferences through the market place, the vector of prices being an outward reflection of all these prefer-
ences. Earlier it was argued that it is possible to view planning in Yugoslavia as a mechanism for simulating forward markets: the process of harmonization acts as a market place where supply and demand and producer and consumer preferences are reconciled.

The process of harmonization could be made to work as a market where individual producers and consumers compete for resources through a bidding procedure. A process similar to this was in fact adopted by the Yugoslavs in the mid-1950s, when enterprises bid for investible resources by offering higher interest rates. The system operated between 1954 and 1956 and was restricted to a limited number of sectors covering between 10 and 35% of investments during the period. Under the system of global balances planning during that period, the level and the broad allocation of investible resources were centrally determined and specified in the plan. Auctions were used as a means of allocating funds within sectors. The auctions were managed by the banks under the authority of governmental bodies following an announcement in the official gazette on the conditions and criteria for bidding.

That system nevertheless had important shortcomings and proved difficult to manage: prices were distorted and consequently did not reflect true scarcities: the numerous and often non-economic criteria in evaluating bids posed a difficult dilemma: project preparation proved to be inadequate; and discontinuity in auctions did not correspond to the needs of enterprises. Many of these difficulties no longer apply, or at least not to the same extent as in the 1950s. Consequently, the potential for some bidding or auction system ought to be more favourable. In practice, however, the system would be difficult to operate. Non-economic criteria are likely to continue to be important and elusive to handle. More important, the whole process of auctioning raises thorny questions: should auctions be based on point offers or schedule offers? Should they use a discriminatory price rule or charge a uniform 'marginal' rate of interest? Moreover the operation of such a system runs clearly counter to the basic philosophical premises of the new constitution, because it would imply a capital market in which capital is allocated not by the generators of surplus value but through an impersonal mechanism alienating workers from the fruit of their work.

A second alternative would be for enterprises to agree on the application of analytical techniques, such as cost benefit analysis, to ensure that funds are allocated to projects promising the highest returns to society. The chambers of the economy would act as a forum for such analysis, though to be compatible with the philosophical premises of the new system the use of cost benefit analysis nevertheless poses one important question. It presupposes the calculation and application of a consistent set of country parameters, but the calculation of these parameters is not value-free, in particular when issues of income distribution enter in. Thus one prerequisite to the application of cost benefit analysis would be general agreements on the value of these parameters.

The planning exercise for the 1976-1980 plan appears to have been based on a variety of approaches mixing old and new procedures. Bidding procedures do not appear to have been used or even seriously considered. To the extent that cost benefit analysis has been used, it does not appear to have been based on a consistent and elaborate method. By the same token, it seems unlikely that political compromise could be made completely antithetical to the economic viability of projects. The openness of the economy, the often reiterated role of market-based prices, and the interests of enterprises to maximize their incomes all provide a strong incentive toward economic rationality.

The second difficulty relates to the adjustment mechanism of the plan. Self-management planning, as already noted, could help to eliminate market uncertainty. But market uncertainty is a special case of uncertainty. There is another form of uncertainty: 'environmental uncertainty' which cannot be eliminated through greater exchange of information between the agents because it is external to the system. Theoretically, the general-equilibrium model can be extended to handle such uncertainty through the establishment of 'contingency' markets with contingency commodities and prices. The basic idea is quite simple. What is required is a market for each commodity conditional on a certain state of nature with a spot price, with interest rates for each period conditional on the state of nature, and with an all-embracing insurance scheme that allows individuals to hedge against any state of nature. Given these conditions, it should be possible, in principle, to come up, through a system of negotiation, with a vector of equilibrium prices for each state of nature. In other words one could conceptually determine an optimal plan consisting of a set of optimal sub-plans for each state of nature with all economic agents being legally bound through the forward contracts made in the contingency market. The
Yugoslav planning system recognizes this:

... workers must have at their disposal complete and clear information on all elements necessary for decision-making including possible alternatives and foreseeable consequences of selecting particular alternatives.66

Although the plan recognizes the need for 'contingency planning', the problem is perplexing in reality. If, for simplicity, we consider three possible uncertain exogenous variables such as weather, exports and technology and assume that each can have three distinct values such as low, medium and high and that the plan period is 5 yr, the economy could face about 14 million different paths.61 Under these circumstances the 14 million interdependent indicative subplans would have to be determined through a process of negotiations or bidding.62 In practice, of course, the number of uncertain variables and their alternative values would be considerably greater and the number of subplans would theoretically approach infinity.63

What are the implications of this for self-management planning? Because only a very limited number of different environmental paths can be considered, and because there is no certainty that these will closely approximate the future evolution of the environment, there will be considerable risk that expectations will not be fulfilled. Given the all-embracing nature of the plan and given that it imposes legally binding obligations on economic agents, the new planning mechanism is likely to prove to be difficult to operate. Under rapidly changing circumstances, the system of planning would become difficult to operate, and the adherence to contractual obligations could lead to misallocations of resources and the need for a complex system of fiscal transfers. If obligations are nullified, there will be either a return to the invisible hand of the market or a need for recontracting. Given the time taken to obtain all the contractual obligations for the current plan (some 2 yr), it seems unlikely that recontracting could be easily done within the scope of a 5-yr plan. Much will depend on how susceptible Yugoslavia is to environmental risk. The openness of the Yugoslav economy to foreign trade and demonstrated difficulties that Yugoslavia has had in the past faced in short-term economic management of the economy certainly will pose problems.

The Yugoslavs stress that the 5-yr plan is complemented by a system of continual planning based on annual assessments of the implementation of the plan. They see continual planning as a means of adjusting and rephrasing the various plans and projects underlying them, or, where necessary, of abrogating contractual arrangements. Again much will depend on the procedures adopted to revise plans. It is important that the necessary adjustments be expeditiously undertaken and based on a consistent analytical framework.

An important measure would be to leave a portion of investment unallocated as a reserve. For example, Kornai suggests that up to 30% of investment should remain uncommitted.64 To some extent, an element of flexibility has been built into the planning mechanism by designating certain activities as priority activities, for which harmonization and the ensuing contractual obligations must be concluded by a certain date, and other activities as non-priority activities, for which harmonization is encouraged but not mandatory. This system, while providing some flexibility, can also lead to anomalies. The system of contractual obligations would theoretically ensure infinite supply and demand at the negotiated prices for the priority sectors. Consequently, in cases of shortages, the price mechanism is nullified in its role as an allocator of resources between the priority and non-priority sectors. The brunt of the adjustment would, at least initially, fall on the non-priority sectors. Such a process could be disruptive and lead to resource misallocation. The priority sectors may also be adversely affected by the feedback effects of changes in the non-priority sectors. Furthermore, shortages or surpluses would result in a dual structure of prices: those fixed through contractual obligations and those left to vary freely with market conditions. The adjustment mechanism could be more effective if the need for reserve funds were explicitly recognized and established.65 The use of these funds should be governed by market forces. Although it is too early to review the adjustment process in Yugoslavia, the application of an appropriate mechanism clearly is of crucial importance to the success of the plan.

The third problem arises because planning is based on a limited time horizon, which leads to an additional type of market uncertainty that cannot be readily handled. Decisions made during the plan period may be subject to expectations of what is likely to happen after the plan period, particularly in so far as commodities are durable and investment has a long pay-back period. Extending the time horizon helps to reduce such market uncertainty, but only at the cost of increasing environmental uncertainty. At some point the benefits of extending the time horizon will be offset by the costs.
binding undertakings thus are not imposed, they merely are an outward reflection of consumer and producer preferences. In addition, the during the current plan period. The Yugoslavs recognize this in formulating their long-term plan.66

It is necessary to establish organic links, a feedback effect and interconnections between long-term development policy and medium-term and annual plans. . . This should help alleviate this problem especially if future long-term plans are formulated on the basis of widespread participation by all economic units.

A fourth area that poses difficulties for the planning system, but one that again may not be as serious in the Yugoslav institutional framework is the assumption of perfect competition and no external economies. If competition were perfect throughout the system, behaviour would be solely determined by prices. Once monopoly is introduced, it is necessary to specify the demand curve (and the monopolist must accept the specification). Once oligopoly is introduced, there are elements of game theory or collusion. In both cases the problem of attaining an optimum becomes extremely treacherous.

In Yugoslavia the complete transparency of the economy induced by the continual and comprehensive exchanges of information during plan formulation, greatly restricts the ability of enterprises to reap monopolistic returns. This is given legal support through the principles of solidarity and reciprocity in the constitution, which call for the equal sharing of pure economic rent or adversity and the exclusion of windfall and monopoly profits. To accommodate external effects, particularly those associated with commodities having the character of public goods, Yugoslavia has introduced communities of interest. These communities basically are forums for consumers and producers to get together and determine the exact supply of various services to be provided and the cost of providing them.67 Such an arrangement provides a forum for internalizing, and thus considerably reducing the importance of, external effects.

Finally, much of the success of the planning mechanism will hinge on the establishment of procedures ensuring the transmission of correct and unbiased information. Enterprises may have an incentive to provide unduly optimistic projections and thereby ensure their adequate command over resources. Consequently an appropriate structure of disincentives and penalties needs to be established to encourage accuracy in the bidding process. This could be difficult. The reason is that responsibility for errors may be diffuse and may thus have to be traced through a complex input output chain. Aside from this difficulty the pay-off schedules for information exchanges may be different for some participants. In some cases there may be no incentive to transmit information. That could necessitate some coercion, which in turn could pose particular difficulties in zero-sum zones. Managed and closely monitored exchanges of information thus are crucial.68

In the Yugoslav planning system, as has been observed, exchanges of information are mandatory and closely managed. Similarly the provision for binding contracts, with penalty clauses for non-fulfilment, potentially acts as a deterrent against provision of misinformation. In practice, however, much will depend on the extent to which firms will be held accountable for their mistakes and, if financially insolvent, threatened with liquidation a stick that has not been that widely used in Yugoslavia.69

5. CONCLUDING REMARKS

In the preceding sections, self-management planning as a mechanism for the co-ordination of economic activity was compared with the mechanism for resource allocation in the theoretical general-equilibrium model as applied to intertemporal decision-making under conditions of uncertainty. The analysis has shown that the new system of planning and the recent institutional changes provide a setting similar to that envisaged in the theoretical models: notably, complete participation and expression of revealed preferences, forward contracting, and comprehensive exchanges of information to facilitate decision-making. The process of simultaneous harmonization and the ensuing contractual arrangements simulate the operation of forward markets for commodities with future prices and forward deliveries. Although the planning system does not explicitly prescribe the development of contingency markets, the need is recognized for enterprises to consider alternatives and for contracting based on alternative contingencies. The participation by all economic units ensures that plans reflect the revealed preferences of all units and are acceptable to them. This outcome gives much support to the Yugoslav contention that plan fulfilment is promoted by the participative character of the planning system. The legally
One way to help alleviate the problem is to have a prospective plan on the basis of which decision-makers can make rational decisions. Preparation of a prospective plan facilitates decision-making during the plan period because a long-term view is essential if economic units are to enter into contractual obligations that must in part reflect their perception of the economy in the post-plan period. At the same time, annual reassessments of the progress made toward the objectives of the plan help focus attention on the need for recontracting, should that need arise, and for introducing specific macroeconomic measures.

The success of the new system of planning hinges on the ability of the Yugoslavs to deal with several issues that the planning mechanism raises. One of the most important of these issues will be the adoption of rules and procedures for co-ordinating individual plans and choosing among alternatives. These rules and procedures are crucial if adequate stress is to be placed on the use of economic criteria in decision-making. Participants can be made aware of the costs and benefits of their decisions, as well as the trade-offs involved in introducing non-economic considerations. In addition, measures to facilitate adjustments of the plan to changing conditions will be necessary if waste is to be avoided. Measures that increase the flexibility offered by the plan to decision-makers. Consequently, there is likely to be a period of learning-by-doing before the true potentials of the new system of planning can be realized and fully assessed.

NOTES

1. This paper was prepared in conjunction with a World Bank Country Economic Report: Martin Schrenk, Cyrus Ardalan and Nawal El Tatawy, Yugoslavia: Self-Management Socialism and the Challenges of Development (Baltimore: John Hopkins University Press, 1979). Portions of the paper have been incorporated into that book. The views and interpretations in this paper are solely those of the author and do not necessarily reflect those of the World Bank and its affiliated organizations.


5. Article 15 of the 1946 constitution sets the scene: 'In order to protect the essential interests of the people, increase national welfare and make proper use of all economic potentials, the state directs economic life and development through a general economic plan, relying on the state and co-operative sector and exercising general control over the private sector in the economy.'


7. See Deborah Milenkovich, Plan and Market in Yugoslav Economic Thought (New Haven, Conn.: Yale University Press, 1971); and Singleton, op. cit.

8. The drought and failure of the collectivization of agriculture may have also contributed to the decision. But on strictly economic grounds the plan cannot be judged to have been a failure or a success. See Milenkovich (1971), op. cit., pp. 62-77.

9. 'A complex of different annual political and economic instruments for the current regulation of a free, but imperfect market'. See Ekonomista, 1958, quoted in Milenkovich (1971), op. cit., p. 122.


11. During this period the Yugoslavs experimented with auctions for investable resources with enterprises bidding for funds on the basis of a given set of criteria including interest payments. See Egon Neuberger, 'The Yugoslav investment auctions', Quarterly Journal of Economics, Vol. 73, No. 1 (February 1959), pp. 88-115.

12. A contributing factor may have been the chronic trade deficit in the balance of payments throughout the late 1950s and financed through bilateral aid.

13. See, for example, Milenkovich (1971), op. cit.

14. Established in 1965, the Federal Fund for the Accelerated Development of the Less Developed Republics and the Autonomous Province of Kosovo collects approx. 2% of the gross material product of all republics and provinces and distributes these resources on highly concessionary terms to the less developed regions.

16. Schrenk et al. (1979), op. cit.

17. This corresponds to a dictum phrased by John S. Mill, 'The Authority which is most conversant with principles should be supreme over principles, while that which is most competent in details should have the details left to it.' John Stuart Mill, Representative Government, p. 183, cited by Neuberec (1959), op. cit.

18. The Federal Planning Institute has published a handbook of self-management planning in which a list of possible indicators according to the type of economic unit involved are summarized. See Luka Belogrlic et al., Handbook of Planning Ideological Premises Methodology Regulations (Belgrade: Federal Institute for Social Planning, 1976).

19. All enterprises are members of the chambers of economy. Each republic has its own chamber, including the federation. The chambers act as a forum where enterprises can formulate common views on matters of economic policy and as a body carrying out the dialogue with the administration. Chambers are organized on sectoral and functional grounds.

20. 'Self-management agreements and social compacts determine the common interests and objectives and set out the mutual relations, rights, obligations, and responsibilities for realizing these interests and objectives.' Article 18, Law on Planning. See also Caslav Strahanic, 'Self-management agreements and social compacts', Socialist Thought and Practice, Vol. 16, No. 6 (June 1976), pp. 24-27.

21. In drawing up the social plan, especially at the federal level, considerable attention is also paid to the growth experience and pattern of other countries. In this respect, the Yugoslavs draw on what Kornai has called the 'international mainstream' as a planning tool. See Janos Kornai, Rush Versus Harmonic Growth (Amsterdam: North Holland, 1972), pp. 15-23.


23. 'For their participants and signatories, they are laws and even something more in terms of their social substance.' Vlaskalic (1975), op. cit.


25. 'Thus the plans for socio-political communities bring about the unity of the systems of planning and decision-making regarding income and possibilities to realize their common interest.' Article 93, Law on Planning.


27. This is not to say that the basic concepts of self-management planning are derived from these sources. These could have been developed independently or without any specific theoretical foundation.

28. See, for example, Meade (1970), op. cit.

29. This is the thrust of the Clower Leijonhufvud interpretation of Keynes General Theory.

30. There is a small provision if the economy is to converge to an equilibrium, namely all commodities must be substitutes. Complementarity in production and consumption creates difficulties that call for more complex search procedures.


32. See Meade (1970), op. cit.

33. Article 1 of the Law on Planning, for example, calls for the 'elimination of random behaviour of the market', a phrase frequently used in innumerable other documents including references to excessive short-term price fluctuations caused by 'group ownership' behaviour of individual enterprises.


35. See Meade (1970), op. cit., p. 50.


38. The frontier itself need not be precisely defined. In Albin the frontier represents the planning authorities' target growth rate. This may be a useful starting point but clearly may have to be revised as more information is exchanged between all parties.

39. For example, if planners hope to achieve a 6% growth rate, they should start at, say, 2%.

40. According to Albin, errors are likely to be heteroskedastic, that is, they increase the further away from the axis you move.

41. See Meade (1970), op. cit.

42. The market system is based on 'ulterior' signals, i.e. warnings that things need to be changed; self-management planning complements these with 'anterior' signals reducing waste. Kornai (1972), op. cit., p. 15.

43. See Scitovsky (1954), op. cit.

45. See Social Plan of Yugoslavia 1976 80 (Belgrade: Federal Committee of Information), p. 125, paragraph 13, ‘In view of the dispersed nature of initiative and decision-making and the large number of policy-makers and executives, the efficiency of self-management planning depends to a decisive extent on the timely, effective, full and rational provision of information primarily in basic organizations of associated labor, and in other places and at all levels where decisions are made and adjusted.’ Also, the long-term plan stresses, ‘Mutual exchange of information should create conditions for jointly avoiding irrational decisions,’ Federal Assembly, ‘Draft outline of a common policy for long-term development in Yugoslavia (until 1985),’ Yugoslav Survey, Vol. 16, No. 4 (November 1975), p. 87.

46. This has been particularly the case with members of the Vienna school such as Hayek and Von Mises. See, for example, Friedrich A. Hayek, ‘The use of knowledge in society’, American Economic Review, Vol. 35 (September 1945), pp. 519–530. More recently Pelikan has introduced the notion that doing different things and attempting to convey deferring preferences, limits the efficiency of a centralized system. This type of problem presumably would also apply to a large model of market socialism. Pavel Pelikan, ‘Language is a limiting factor for centralization’, American Economic Review, Vol. 59, No. 4, Part 2 (September 1969), pp. 625–631.


49. Patents are an exception.

50. See, for example, Francis M. Bator, ‘Anatomy of market failure’, Quarterly Journal of Economics, Vol. 72, No. 3 (August 1958), pp. 351–379. See also Arrow, op. cit., where Arrow concludes his article with: ‘There is a strong case of centralized decision-making under these circumstances.’

51. If, for example, the state provided information on the expected state of the market based on existing plans, and found a shortage of beer, for example, individual enterprises may all unilaterally increase their production plans and create the typical cobweb situation. If, on the other hand, all agree on a planned expansion, what is left of the capitalist’s role as a bearer of risk?

52. See Oscar Lange, On the Theory of Socialism (Minneapolis: University of Minnesota Press, 1938).

53. Enterprises are encouraged to be as efficient as possible and be rewarded for this, however, the principle of ‘reciprocity and solidarity’ tends to preclude the accrual of pure economic rent to workers.


55. See Neuberger (1959), op. cit.

56. See Neuberger (1959), op. cit.

57. The problem with point offers is that enterprises do not know (unless you use discriminatory pricing) the interest he will have to pay and depending on the interest his choice of the project design or commodity mix may have been different. Schedule offers (i.e. a set of bids based on alternative expected interest rates) are preferable but cumbersome to operate, similar problems exist with discriminatory pricing arrangements. See Neuberger (1959), op. cit., p. 112.


59. For an elaboration and formal proof see Meade (1970), op. cit.; or Radner (1968), op. cit.


61. \[ Y \times Z \times X \vphantom{X} \]

where:

\[ X \] = number of environmentally uncertain variables;

\[ Y \] = number of different values \( X \) can take;

\[ Z \] = plan period (yr).

\[ 2^{3 \times 5} = 14,348,907. \]

62. The individual would have to determine his subjective probability assessment for these 14,352,087 different paths, each expressed as a ratio adding to unity in total.

63. A special type of environmental uncertainty is linked to demographic turnover. Changes in the composition of the participants in the planning exercise through birth, death or retirement changes the initial set of indifference curves and production possibilities. This changes the initial premises on which the plan is formulated thus frustrating plan fulfilment.

64. Kornai (1972), op. cit., pp. 137–140.

65. ‘Quick adaptation of the system can be made
possible only by liquidating the tension due to shortages, with major reserves (within that, with mobile real capital suited to the quick implementation of investments with the excess supply of investment goods). Kornai (1972), op. cit., p. 140. "The existence of the uncommitted liquid investment reserve mobile real capital is at least as important as physical condition of the effective functioning of the market and its playing a particular role in complementing and adjusting the plans as the legal and institutional conditions authorizing enterprise autonomy." Kornai (1972), op. cit., p. 144.


68. For a useful discussion see Albin (1971), op. cit., pp. 82-88.

69. Schrenk et al. (1979), op. cit., Chap. 8.
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