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Planning and Management - Summary

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A review of the major economic reforms of the past two decades reveals no disposition by the Soviet leadership to question the appropriateness of maintaining the system of central economic planning. On the contrary economic policy has been directed toward improving and expanding central planning, while seeking ways of also improving the management system.

Looking to the future, of the four models from which the Soviet leadership may choose, the Conservative model is likely to command the strongest political support. There is a reasonable possibility that that model, which consists essentially of the present system with periodic efforts at improvement, will yield a level of consumption sufficient to maintain political stability. If it does not, the most likely alternative is the Reactionary model, which involves a modernized neo-Stalinism. The principal feature of that model is a tightening of labor discipline and of political controls. That model might produce some improvement in the growth rate, particularly in the short run. A Hungarian type of decentralization, which we call the Radical model, would command very little political support, and is not likely to produce in the USSR even those modest gains that it registered in Hungary. There is a fourth model that might secure substantial gains in the USSR but is not widely discussed. That is the Liberal model, which entails the establishment of an extensive small-scale private sector operating alongside the state sector which would continue to be planned centrally as at present. That model could release a large volume of entrepreneurship that presently finds no outlets, or only illegal outlets, in the USSR. There would be strong ideological objections to it, but a secure and powerful future leadership may one day turn to it if the other models prove to be unsatisfactory.
Planning and Management

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In July of 1979 the Party and Government issued a decree announcing a variety of changes in what is now called the economic mechanism. The decree evoked a flurry of interest at the time, but in short order public attention turned to other things. There are two lessons in that incident. First, the process of modifying the system of planning and management has become routinized. The public has become used to the periodic announcement, usually in advance of the next five-year planning period, of a series of changes that had been agreed upon since the last such decree. Second, for the most part the changes are technical rather than fundamental, involving such matters as new success indicators or revised planning procedures.

The capacity of the system to review its methods of operation periodically and to seek ways of improving them must be regarded as one of its strengths. There is a view abroad, however, that the range of alternatives considered, in the public discussion at least, is too narrow to score a significant advance. If Mr. Brezhnev were immortal, that restriction might continue indefinitely. But as the USSR enters the last decades of the century, there is a strong possibility that the range of discussable alternatives may widen, not only because of human mortality, but also because of the growing strains to which the economy will be subject.

The objective of this paper is to explore that wider range of alternative systems of planning and management that may be considered as the next two decades unfold. It is well to begin, however, with a review
I. Some Reflections on Recent History

Five cases of changes in the economic mechanism will serve as the specimens in this dissection of the past. The details are familiar to this audience and have been so well studied elsewhere (Schroeder, 1979) that they need not be recounted here. The purpose is rather to review those cases for the light they can shed on the views that the governors of the economic system hold about that system. Two questions will be asked about each of the cases. First, what were the governors seeking to accomplish by that particular change? Second, what does that change reveal about their conception of how their system works? The first question is designed to identify the objectives of the leadership, and the second to understand their implicit model of their own economy. That sort of knowledge about past efforts to change the economy should provide some insight into the future course of such efforts.

The selection of the five cases is somewhat arbitrary. Two of them, the Territorial Reorganization of 1957 and the Economic Reform of 1965, would appear on everybody's list of the most important efforts at system change. The others have been chosen not necessarily because of their prominence but because they deal with different facets of the planning or management system. Other analysts would select other cases, covering areas I have omitted, like agriculture. The five that have been chosen nevertheless represent, I believe, a reasonable selection of changes from which to seek some instructive generalizations.

1. The Territorial Reorganization of 1957. The problem to which the reform was addressed was the diversion of resources into uses different from
those provided for in the plan. To some extent the issue was the deliberate violation of the plan; for example, when ministries instructed their enterprises to alter their shipping plans in favor of customers within their own ministries. In other cases the issue was not violations of the plans but restrictions on the flow of resources in ways that were contrary to the intent of the plan. A typical instance was the enterprise that possessed excess stocks of some scarce commodity while a neighboring enterprise's production plan foundered for lack of that commodity; but the redirection of that commodity from the first enterprise to the second was inhibited because they belonged to different ministries.

The source of the problem, as seen by the reformers, was captured in the slogan, *vedomstvennost*' or "departmentalism." That may be interpreted to mean that ministries tended to maximize the indicators of their own performance, which in system terms is equivalent to suboptimization by the component units at the expense of the performance of the system as a whole. The solution was thought to be a restructuring of those components by repartitioning them in such fashion that the identity of the suboptimizing units—the ministries—was obliterated. If there were no ministries there could be no suboptimization by ministries.

It is difficult to imagine, in retrospect, that the reformers did not anticipate what the consequence would be; that only the specific form of the objectionable behavior would be changed, but not that behavior in general. There had been ample evidence in the past of mestnichestvo (localism) in decision-making by regional government and Party organizations. The outcome was indeed so predictable that a compelling case can and has been made that
the whole purpose of the exercise had nothing to do with economics at all but with politics; namely, that the reform was Khrushchev's gambit for crushing the power base of the Moscow bureaucracy by transferring their power to his supporters in the provincial centers. If that was indeed the history, then we are misled in trying to draw too many lessons out of the economics of the reform. But one can recognize the political element in the reform without having to hold that there was no serious economic purpose behind it. If the reformers failed to anticipate the turn that the economy actually took after the reform, it may be because they expected either that (a) mestnichestvo could and would be more easily contained than the old vedomstvennost', if only because none of the 110-odd provincial economic leaders could wield the power of a major industrial minister, or (b), even if that were not so, the cost of mestnichestvo would be less than that of vedomstvennost'. We know in retrospect that both of those propositions were wrong, but they could have been honestly held by reasonable men at the time.

The episode offers several insights into the thoughts of the system's governors about their system. It is clear that there was no questioning of the principle of central planning as the basis of the economic mechanism. They recognized that planning was not perfect, but that was not the issue to which this reform was addressed. The problem was that even perfect plans are not self-executing, but require persons and organizations to carry them out. The task of government was to create a management structure in which managers would make those decisions that are in closest conformity to the plan. In seeking out the villain, of the several levels of management at which the problem could have been attacked, they chose the level of central management—
the ministries. Presumably they saw enterprise-level management as less at fault, or perhaps as more compliant. The effective power of choice lay with the central management, and if the central management could be made to behave correctly, enterprise management could be expected to comply. In any event, even if they were not quite that starry-eyed about enterprise management, it was their judgement that the greater damage was being done where the greater overall decision-making power lay—with the central management.

Finally, the problem was seen not simply as one of incentives but of structure. If it were merely incentives, they might have sought to design new incentives—perhaps new success indicators—to induce ministers to alter their decisions. The fact that they did not take that tack indicates that they did not see that as the source of the problem. They must have felt that it was the branch structure of the management system that induced the unfortunate behavior, and no amount of fiddling with success indicators would eliminate the pressures toward maximizing the performance of the branch.

The Territorial Reorganization was introduced in 1957. It is well to recall that that was a period in which the Soviet economy was still growing very rapidly. The reform was the first major effort to eliminate some of the grosser sources of inefficiency in the rigid system of planning and management inherited from Stalin. The evidence of waste was abundant, but the system was thought to be performing quite satisfactorily at the time. The objective of the reform was to enable it to do even better. The beginnings of the decline in the growth rate date from the late 1950's. By the mid-sixties it was increasingly evident that the decline was not a short-term aberration but was perhaps something
The next major reform was introduced under new conditions; the economy had seen better days and its governors wished to find a way of bringing those days back.

2. The 1965 Economic Reform. The problem that motivated this reform was similar to that involved in the Territorial Reorganization: enterprises were making a broad range of decisions that were contrary to the intentions of the plan. And as in the earlier reform, the source of the problem was again held to be the organs of central management; that was the meaning of the slogan, "petty tutelage." But one new source was identified this time. That was the use of poorly designed success indicators that directed enterprises into making incorrect decisions.

The petty tutelage problem was an issue in organizational theory; the question was, what were the optimal levels at which various types of decisions should be made. One can detect in the solution the primacy of informational concerns. That is, the decision to devolve a wide range of choices from the level of central management to that of enterprise management reflected the view that those were areas in which enterprises had more precise and timely information at their disposal than the central ministries.

The success indicator problem, in contrast, was an issue in economic theory; it was indeed the first reform in which economists rather than politicians and planners had a hand. By identifying the source of the problem as the notorious val, (gross value of output), the reformers implicitly acknowledged that they were dealing with a process of maximization under constraints, and that in such a process it is important to get the objectives function right. That way of thinking about the
economic mechanism was a giant step forward from the reasoning of the past which held that the problem was simply to get managers to "fulfill the plan." It led eventually to the formulation that is currently in wide use: "what is best for the economy should be best for the enterprise."

The choice of sales revenue and profit as the new success indicators was a reasonable first step in the direction of designing an optimal objectives function for enterprise management. Though not usually put into the same category, the introduction of a capital charge may also be regarded as a contribution to the improvement of the success indicators. For when profit is promoted to the level of a major argument in an objectives function, it becomes more important to be sure that the relative costs of the factors of production are properly accounted for.

The change in the success indicators required a corresponding change in the incentive structure, that had formerly been linked primarily to \textit{val}. The new system of the three funds involved nothing new in principle, however. All the elements were there before, in the form of the Enterprise Fund, although the magnitudes of the contributions to the three different uses was changed.

In the course of a few years several features of the original reform were modified. Among the major modifications was the gradual increase in the number of indicators for which the enterprise had to account to the ministry. The reason for the retreat is instructive because it bears on a problem that arises in all efforts to reform the system of planning and management. The central allocative instrument is still the national plan. Gosplan must be held responsible for the consistency and optimality of the plan, and some one else must be held responsible for assuring that that plan is executed. As long as the
executors are the ministries, they must be given authority equivalent to their responsibility. The Economic Reform was an attempt on informational grounds to permit enterprises to make a wide range of decisions that affected plan fulfillment, but to hold the ministries responsible for the results. In effect, the ministries were put in the position of being held responsible for decisions that they were forbidden to control. The impossibility of that organizational arrangement led eventually to the reassertion by the ministries of control over those kinds of enterprise decisions for which they had to account to the Party and the Council of Ministers.

In that piece of history there is an important lesson regarding the limits of decentralized decision-making under central planning. A governing unit (for example, a capitalist corporation) can delegate decision-making authority to lower units on grounds of informational efficiency if it determines its own objectives function; it can decentralize purchasing while retaining control over pricing, for example. The test of that organizational arrangement is its own evaluation of whether the results are better in the light of its own profit and other objectives. But if a governing unit (like a Soviet ministry) is not an autonomous organization but is responsible to a higher organization for a very detailed plan of operations, then it cannot be limited in the kinds of controls it may exert over its operating units. Specifically, if the material balances in the national plan are carried out in physical or gross-value units, then the ministerial executors of that plan must be held accountable for the production by their operating units of the specified physical qualities or gross values. They simply cannot be denied the power to telephone
their enterprises toward the end of the month to inquire how close they are to fulfilling their gross-output targets. And once the telephone calls are made, the message is fully absorbed.

To be sure, a ministry itself may delegate certain decision-making authority to its enterprises on grounds of informational efficiency. But the range of such decentralized authority is likely to be very limited, and to deal with secondary choices for which the ministry itself is not directly accountable. Thus the lesson of the Economic Reform is that genuine decentralization of authority to enterprises is strictly limited by the directive nature of a detailed national economic plan.

With respect to success indicators, the prospects are brighter. What is involved is the choices that must be made that are not dictated by the terms of the plan. The usual instances are choices among qualities not specified in the plan, or choices of output-mixes in excess of the minimal assortment plan targets (i.e. plan overfulfillment.) Since the goal is to induce those decisions that are most consistent with the objectives of the plan, the shadow prices implicit in the plan could serve that purpose, with profits as the maximand in the objectives function. Nevertheless, if the ministry is still held to account for quantities or for gross value of output, it is those magnitudes that will prevail in enterprise decisions.

3. The Price Reform of 1966-67. The primary goal of the Price Reform may be judged from the kind of evidence that was presented as justification of the need for such a reform. What was thought to be the most persuasive evidence was the widely published data on the vast spread of profit rates among products and branches, ranging from highly subsidized branches like coal to highly profitable
branches like machinery production. Among the reasons that such diversity of profit rates was regarded as bad, the following predominated: (1) subsidies are bad in general, because they encourage inefficiency and neglect of cost by producers who anticipate that the government will subsidize the loss; (2) high profits are generally unearned, and represent rental elements in income; they are inequitable, and they also weaken cost discipline; (3) large profit differentials between commodities bias product-mix choices by producers and input-mix choices by purchasers. The goal, therefore, was to reestablish a price structure in which most enterprises earned the normal profit rate and a few of the best and worst earned a bit more and less in proportion as their work diverged from that of the "normally operating enterprise".

What does this concern about profit differentials reveal about the leadership's analysis of the economic system? For one thing, it reveals a certain normative notion of what prices should be. The ideal presumably was one in which most enterprises earned the normal rate of profit and a few earned somewhat more or less, the excess or shortfall of profit serving both as a success indicator and as an incentive. However, the basis of pricing was to remain average branch cost plus normal profit. The objective was that prices play not an active but a neutral role in decision-making. The trouble with large profit differentials is that they convert price into an active element in decision-making, in the sense that managers depart from rational or socially desirable decisions because of the profit-related consequences of wide price variability. In other words, the ideal was not that price should serve as an allocative device; the plan was still the primary allocative instrument. The objective
was rather a price structure in which profit could serve as a success indicator (which requires some degree of variability) without at the same time serving as an allocative device by influencing production choices.

Thus the Price Reform was a reaffirmation of central planning as the allocative mechanism. Managerial decisions are to be made on the basis of plan assignments whenever those assignments are clear, and not on the basis of price and profit. The Price Reform recognized, however, that for a broad range of decisions that had to be made by management there was no clear indication of which alternative contributed most to the fulfillment of the national plan. The Economic Reform of 1965 had designated profit, along with sales, as a major criterion of performance and therefore implicitly as a proper basis of choice. By eliminating the large profit differentials of the past, the Price Reform was designed to assure that the choices made would be in closer conformity with the objectives of the plan.

There were two exceptions that are noteworthy. One was the pricing of new products. In a separate decree issued in 1965, before the Price Reform, the pricing of new products was reorganized on lines entirely separate from those of established products (Berliner, 1976, chs. 10-12). That decree introduced certain highly active functions for prices in the case of new technology. Profit rates were deliberately differentiated in order to induce management to choose the higher-profit alternatives. It is significant that this concession was made in order to promote technological innovation. Central planning is at its best with well-known technologies, and at its worst with technologies not yet fully developed or even yet unknown. In assigning an active function to prices and profit in this case the system's governors
demonstrated a new awareness that in this major area of economic activity central planning suffers from certain limitations and more decentralized decision-making can be helpful.

The second exception was the introduction of rent-like fixed charges on commodities like petroleum and timber. The use of such charges was a victory for the marginalists and quasi-marginalists who had finally persuaded the leadership that at least in those cases in which the difference between marginal and average cost is very large, price should be used actively to discourage consumption. In this case it is not only managerial decision-making that is to be influenced but also the plan itself. In deciding whether to use oil or coal in a new power plant, for example, it is the marginal cost of the two fuels that planners must take into account. Hence the purpose of this new provision is to improve the quality of central planning as well as that of managerial decision-making.

4. Production Associations. This reform consists of the merger of groups of enterprises into new super-enterprises under a single management. In one class of mergers the key feature is that a formerly independent R & D institute is a part of the new association, and sometimes the dominant member. These are the science-production associations (NPO's). The other production associations follow the familiar pattern of the vertical integration of enterprises, although there are some cases of horizontal integration.

The problem that motivated the founding of the science-production associations is clear enough. It was the unsatisfactory rate of technological progress. This in fact is the first of the reforms under review in which the problem of technological progress lay at the heart of the reform, although it
played a role in the others. But if technological progress were the only objective of this reform, one could not explain why the merger movement was extended to encompass virtually all of the non-agricultural economy; for most of the mergers do not involve R&D institutes. One must therefore postulate a second objective, which appears to be yet another stab at the problem of enterprise-level decision-making. The specific facet of the problem in this case was that enterprises produced outputs that did not take sufficiently into account the requirements of their industrial customers. This second objective is related to the first in that it was not merely the quantities of output but also their qualities that were at issue. That is, the concern was not simply that enterprises produced types of products that did not correspond to the needs of users, but also that the quality of outputs did not correspond to the needs of users.

The selection of the production association as the device for getting at these two problems suggests a change in the analysis of the source of the problems by the system's governors. In earlier reforms it was assumed that enterprise managers were motivated to make correct choices. The problem was that they were misdirected, by the ministries in the case of the Territorial Reorganization, and by the success indicators and also the ministries in the case of the Economic Reform. In turning to production associations, it appears that the leadership has given up the view that by creating the appropriate environment (better success indicators, better prices, less misdirection by central management) enterprise management could be counted on to get things right. The production associations have virtually eliminated enterprise management, as it has operated for forty years, as a significant level of economic
decision-making. The former enterprise manager now occupies a position that is rather like a glorified version of what in the past was the position of shop chief. The new approach is to take responsibility out of the hands of the enterprise managers and to relocate it at a level that is very much like the central management of the past. The production associations may be regarded as micro-ministries, in the sense that they enjoy powers over the former enterprises similar to those formerly enjoyed by ministries over enterprises. They have also acquired some powers that formerly were lodged with the ministries.

With respect to the ministries, the reform is a measure of decentralization (Gorlin, 1976, pp. 180-182). But with respect to the enterprise it is a measure of recentralization. It is also a vote of confidence in the superiority of "administrative levers" over "economic levers." Before this reform, the strategy was to find ways of inducing enterprise managers to behave by creating the proper conditions for them to behave. Now they are to behave because they have a new superior authority that tells them what to do; an authority not as remote as the ministry and with a span of control not as wide as a ministry, so that it is in a much stronger position to be informed and to impose compliance.

This interpretation of the analysis that underlay the reform applies both to the general problem of enterprise decision-making and to the specific problem of technological progress. With respect to the former, producer enterprise A will produce and deliver precisely the outputs required by user enterprise B because they both have the same boss whose career is on the line and who knows the capacity and needs of both enterprises. With respect to technological progress, producer enterprise A will quickly put into production a new product developed by the R & D Institute because, again, they have the same boss, who
may in fact have been the former director of the Institute when it was an independent ministry organization. Nor will the Institute lose interest in the practical success of the product innovation once it has gone into production, as in the past, because the general director of the association is responsible for both units.

Thus the production association reform is a break with the past. It reflects the continued concern with the problem that had been the major concern in the past—enterprise-level decision-making. But it adds a major new concern—the promotion of technological progress. Moreover the solution chosen reflects a change in the strategy that guided past reforms. Instead of seeking ways of improving the quality of decentralized decision making, it has withdrawn decision-making authority from enterprise management and relocated it at a more central level.

5. The Comprehensive Planning Decree of 1979. The reforms in the management system discussed above were widely heralded and have been deemed important enough to have acquired names of their own. It is interesting to note that while changes in the planning system have proceeded through the post-Stalin period, history has judged none of them significant enough to have merited a name of its own. It is possible that the planning decree of 1979 (Ekonomicheskaia gazeta, 1979, No. 32) will pass on in anonymity like the others. I have given it a name not because I judge it to be of name-deserving proportions but because a review of the past would be incomplete without some notice of the changes in the planning system, and the most recent is the appropriate candidate.

The decree may be regarded as a continuation and extension of a series of changes in the planning system that have been proceeding for some time, rather
than as a break with the past or as the opening of a new direction. I suggest the term "comprehensive" because it roughly captures the sense of those changes. First, the planning process now comprehends a longer spread of time; the five-year plan rather than the annual plan is now officially designated as the fundamental plan, and it is to be based on a twenty-year program of scientific-technical development and on a ten-year plan that sets forth the main directions of economic and social development. Second, the planning process now comprehends both branch and regional planning; all USSR ministry plans are to be submitted to review by the republic councils of ministers, and the latter are to present to Gosplan their plans for all their enterprises. Third, the degree mandates a more comprehensive set of balances than in the past; balances are to be employed in the ten-year main-directions plan and in the five-year plan, interbranch balances are to be used for major products, and regional balances are to be used for the production and distribution of major products.*

Two problems can be identified as those with which the system's governors sought to deal in the planning decree. One is the promotion of technological progress. The incorporation of twenty-year and ten-year plans into the current

*The decree deals not only with the planning system but with the management system as well. The major new departure with respect to management is the introduction of a new success indicator--normative net value of output. The intent of the new indicator is to eliminate the benefit that enterprises derive from deviating from their assortment plans in favor of products with a large proportion of purchased inputs.
planning process is intended to build into current planning a basis of consistency with the long lead times of technological advance; to avoid current decisions that lock the economy into directions that may be inconsistent with the probable direction of future technological advance. The technique adopted is to require that current plan decisions be checked for consistency with longer run structural choices that have already been made, and with the forecasts of future technological developments.

The second problem is, once more, enterprise-level decision-making. The reforms in the management system discussed above were all directed at the problems that arise when managers have to make decisions. The necessity for managers to make decisions arises out of imperfections in the planning process; that is, with perfect planning there would be virtually no need at all for decisions to be made by enterprise managers. The system's governors must assume, however, that there will always be considerable scope for managerial discretion, either because the central plan cannot realistically provide for all possible detail, or because of errors in plans, or because of changes in plans. Accepting the inevitability of managerial discretion, the purpose of the management reforms was to improve the quality of those decisions. But the second string to that bow is the improvement of the planning system. The more comprehensive and detailed the plan, the smaller the volume of planning errors, and the less frequent the changes in the plan, the less the need to rely on managerial decision-making.

The implication of this view of the relationship between planning reform and management reform is that planning is thought to be good and management bad. The less the discretion that needs to be given to management, the better. In this
interpretation, the move toward increasing comprehensiveness of planning reflects the hope that eventually everything can be balanced in advance so that management can be reduced solely to carrying out pre-planned instructions. On the face of it, there can be no quarrel with the notion that in a planned economy plans should be as specific as possible. But that doesn't necessarily mean that they must be comprehensive. The alternative view is that there may be some optimal level of comprehensiveness beyond which the marginal benefit of more detailed planning diminishes and that of decentralized managerial solutions increases. It is true that as planning techniques improve the optimal level may involve greater detail. The extension of comprehensiveness does not therefore necessarily mean that the leadership is shifting the balance deliberately. But it appears to me that the push is in that direction. Better planning continues to be thought of as a way of decreasing the inefficiency associated with an obdurate management.

6. Some Lessons of History. I make no claim that mine is the only story that a brief review of recent economic reforms can tell. Had a different list of reforms been selected for examination, or had another analyst considered the same reforms with a different eye, the story might be different. I trust, however, that this account is a plausible one and serves as a useful prelude to an inquiry into the possible shapes of the future.

The first conclusion is that the reforms give no evidence of a disposition to doubt the efficacy of the system of central planning as the basis of the economic mechanism. On the contrary, the 1979 Planning Decree affirms the intention to strengthen the planning system by improving the quality of the national plans. In this respect the efforts of the last several decades have probably been successful. The technical equipment now available to planners,
Including electronic data processing equipment and mathematical modelling techniques for checking the consistency of plans, have no doubt been helpful. We may expect that the plan-making process will continue to improve in the future, although the growing complexity of the economy increases the size of the task from plan to plan. We may also expect that each five-year plan of the future will, like the most recent, be preceded by a decree incorporating in the forthcoming plan a series of newer techniques that have been in the process of experimentation and are ready for adoption.

The second conclusion is that the problem of management has been less tractable than that of planning, and that there have not been significant advances in improving its quality. In principle, planning and management should be expected to complement each other; planners draw up the plans and managers see to their execution. In fact, the relations appears to be viewed by the system's governors as one of tension. Planning is the friend while management is the enemy. Evidence of inefficiency is most often explained as the consequence of bungling or mismanagement. Brezhnev expressed what is probably the general view of politicians when he laid the blame for a series of excesses at the feet of people who "no matter how much you talk to them, no matter how much you appeal to their conscience and their sense of duty and responsibility, nothing helps."

(Pravda, Nov. 28, 1979).*

To see the problem as one of poorly trained or venal people is to close one's eyes to possible defects of the system itself. It obscures the fundamental

problem: that central planning, which must inevitably be imperfect, makes extremely difficult demands upon management. The central managers—the ministries—are responsible for the execution of a detailed set of targets, all of which cannot be fulfilled in the normal course of events. There is no "bottom line", although gross output comes close to serving as the ultimate criterion. Their own record of performance depends on that of hundreds of enterprise (or production-association) managers, who must also constantly make a variety of decisions for which there is no clear guide in the plans. Hence alongside the tension between planners and managers, the system's governors have also to contend with the tension between ministries and enterprises. Most of the reforms have attempted to come to grips with the latter problem. In the Territorial Reorganization, it was decided to solve the problem by abolishing the ministries. In the Production Association reform it was decided to abolish the enterprises instead. It is difficult to foresee any clear basis for a more effective distribution of authority between the two levels in the context of central planning.

Finally, the history of the recent reforms reflects the growing appreciation of the importance of technological progress. The reforms of the fifties and sixties concentrated on the coordination of management and planning and on the increase in static efficiency. But in the more recent reforms technological progress has been at the forefront of the objectives. The change in emphasis coincides with the gradual acceptance of the view that the decline in the growth rate reflects a fundamental change in economic conditions, which is reflected in the formulation of a change from "extensive" to "intensive" growth. How to adapt the system of planning and management to the new goal of promoting technological progress is likely to be the central concern of those who bear the responsibility for the economic reforms of the future.
II. The Conservative Model

The status quo rarely has passionate supporters. The passions are normally on the side of change. Support for the status quo is usually based on a lack of conviction that the untried alternatives will produce a better future than the present. That is likely to be the case if the Conservative model is chosen as the basis of the future system of planning and management in the USSR. It is doubtful that many people, even among the system's governors, regard the present structure as having great merit in its own right. That was not the case two decades ago. At that time Soviet economists certainly, and political leaders probably, looked over the world of economic systems and pronounced their own as exceptionally good. Today the system may still command strong support, but very likely in the Churchillian vein, as a rather bad system, "except for all the others."

The Conservative model retains all the basic structural features of the present system, but it should not be thought of as unchanging in form. Judging from the recent history of reforms, we should expect repeated efforts in the future to try new ways of dealing with old problems. Certainly the planning system will be continually changed by the incorporation of new techniques of central planning. What will remain unchanged is the commitment to central planning as the basis of the economic mechanism. Beyond that, each analyst is free to forecast efforts to change whatever is his own favorite source of inefficiency in the economy. My own guess is that many of the production associations will be dismantled after a period of time, in favor of a system containing a broader mix of large and small enterprises. The reason for this
guess is that the size structure of enterprises in the USSR, even before the production associations, was strongly skewed toward large enterprises, compared to the size structure in the technologically advanced capitalist countries (Kvasha, 1967). With respect to efficiency and certainly to innovation there must be some range of activities in which there are diseconomies of scale. There are also likely to be further changes in such perennials as the success indicators of enterprise management. The indicator newly introduced in the July 1979 planning decree -- normative net output -- may well prove to be exceedingly costly to administer and is likely to bias decisions excessively in favor of labor-intensive choices in a period of tight labor supply. There may be some renewed flirtation with profit as a more general success indicator, but the pathological antagonism to the appropriation by enterprises of unearned economic rents will stand in the way; large profits in particular seem to constitute prima facie evidence that they were unearned, probably as a consequence of favorable price changes. New experiments in the use of contractual relations may be tried, and also new Shchekino-type efforts to reallocate labor among enterprises by various incentive devices. The recent sharp increase in the price of gasoline suggests that price policy may be called upon more often to ration scarce commodities. Price revisions every few years will continue to keep relative prices from diverging excessively from average branch costs, and there may be some further incorporation of scarcity pricing into the price structure. Extrapolating from the past, planning may become more detailed, and with the growth of electronic data processing capacity, the number of balances is likely to increase; although there may be a reaction at some point because of the mounting complexity of the plan-making process, and a return to more aggregated planning.
Certainly there will be new measures designed to promote technological progress and the quality of production. Some would attempt to make use of "economic levers" through new forms of incentive payments. But most will consist of "administrative measures"; changing the structure of authority, holding more people responsible for the completion of assigned tasks, penalties for not fulfilling quality assignments.

To accept the Conservative model is to give up the goal of attaining the technological level of the leading industrial countries. For I take it as fairly well established that whatever the merits of the Soviet economic mechanism, the promotion of technological advance is not one of them. But that is an outcome with which the Soviet leadership ought to be able to live. There is no reason why the Soviet cannot maintain a position that lags permanently behind that of the technological leaders in world industry by, say, an average of about five years. There would be some loss in productivity because of delayed innovation, but that loss would be offset to some degree by savings in research and development expenditures as well as in the costs of learning-by-doing that the country pioneering in any new development must bear. It would be a reasonable strategy for the Soviets to wait until each new major breakthrough is announced elsewhere, and then to proceed to develop their own version on the basis of whatever information can be perused, purchased or purloined. For it an axiom in the R&D community that the most valuable piece of information in technological advance is the information that a certain result has been successfully accomplished by somebody. The strategy of waiting until the results have been accomplished elsewhere is not only cost-saving but is also appealing to R&D people operating in a risk-adverse bureaucratic structure. Moreover, the Soviets have shown that technological excellence can be maintained in a few priority areas where these are deemed crucial for defense or other national purposes.
Taking the foregoing as the essence of the Conservative model, the question here is what are the outcomes that can be expected from the adoption of that model. Since the model involves no significant changes from the past, the past can serve as a guide to the economic outcomes to be expected in the future. There is little reason to expect any discontinuous increase either in static efficiency or in the rate of growth. None of the major reforms of the past has succeeded in doing what their initiators must have devoutly hoped for -- attaining a quantum leap in efficiency. Indeed the term "reform" has disappeared from the public discussion and has been replaced by the expression "improving the operation of the economic mechanism."

The evaporation of the spirit of reform may reflect the view that the system of central planning and management has now reached the practical limit of its perfectability. An economic system is like a technological innovation. When first invented, a steam engine or an internal combustion machine represents a major advance over its predecessor, but it is a very inefficient mechanism in terms of its own potential. In the course of time its efficiency increases, very rapidly at first and more slowly thereafter, with successive waves of "reforms" or "improvements." Eventually it attains a degree of efficiency that can be regarded as the effective maximum that is realistically attainable within the limits of its basic conception; there is only so much one can expect to get out of a machine the basic conception of which is a piston in a cylinder. It is rather like a Kuhnian paradigm in the development of scientific theory; not much more can be expected to happen until someone breaks out of the paradigm with a very different conception of how power may be generated.
That vision may be applied to the invention of central economic planning as an economic mechanism by the Soviet leadership of the thirties. In the course of time it became a more efficient mechanism than it was when first introduced. But like all inventions, the possibilities of improvement within the basic paradigm may have been largely exhausted by the 1960's. It should be noted that the economic mechanism was designed in a period in which the strategy of economic progress consisted of what was later described as "extensive growth." It is perhaps still a reasonably successful model for that purpose. The problem is that the conditions within which the economy operates today are not such as to generate high rates of extensive growth. Three percent per year more or less may be the most that can be expected of an economy designed according to that model. It is in that sense that the economy may be doing as well as can be expected under that economic mechanism.

It is entirely possible, of course, that this judgement may be too pessimistic. To assert that there are few opportunities for further improvement is to imply, paradoxically, that the economy is highly efficient, in the sense of operating close to its production possibilities frontier as defined by the existing economic structure. A future government may yet find ways of extending that frontier. Some such ways have been proposed at this conference: the creation of enterprises specializing in production for export, correcting those relative prices that create perverse incentives in agriculture, providing greater autonomy for small-scale production units within the collective farm. Without abandoning the Conservative model, its limits may be extended by adopting some of the features of the other models discussed below. While a bold package of such measures may prove that the Conservative model contains greater potential than
its recent record reveals, the history of the reforms sketched out above does not offer great encouragement. Individual changes in prices and organizational structures that make good sense in themselves have not produced the desired results because they clashed with the imperatives imposed by the dominating structures of central planning and management.

Suppose then that the Conservative model does not in fact produce better results than those forecast on the basis of the experience of the recent past. The question is whether the leadership can continue to be satisfied with it; that is, to turn to no alternative model but simply to muddle through with only small variations on old themes. I think they can, on one condition—that the decline in the growth rate decelerate and eventually stabilize. A constant rate of growth, even if very low, would constitute a chronic condition, which does not ordinarily lead to disruption. It is the acute problems, such as those encountered with continuous decline, that must ultimately lead to disruption. With a chronically low but stable growth rate, the century could end with a whimper. Otherwise it might end with a bang.

We cannot judge what the minimally sustainable growth rate is—three, or two, or one percent per capita. However, it is safe to say that it is likely to depend primarily on the consumption level. A threshold level of consumption may be defined in political terms, as the level below which dissatisfaction would result in outbursts of disorder that would strain the authorities' instruments of political control. It would be an error for the leadership to believe, however, that there is no danger as long as consumption levels exceeded that political threshold. For there is another threshold at which the economy would begin to suffer from the erosion of incentives. If that incentives threshold, which must be higher than the political
threshold, were not maintained, then it will prove to be impossible to maintain even that low level of stable growth. Output and consumption would decline reciprocally until the political threshold were reached, and then the whimper will turn into a bang. Hence, the key to the question of whether slow growth will turn from chronic to acute will depend on whether the rate of growth can be stabilized at a level sufficiently high to maintain consumption above the incentive threshold.

The Soviet leadership may possibly have some rough notion of the range within the incentive threshold lies, but outside analysts can do little more than guess. My own guess is about the same as the judgement of Gertrude Schroeder Greenslade that a steady increase in per capita consumption of 1-2 percent per year would "provide consumers with a sense of forward motion" (this volume, p. ). Under the baseline projection of SOVMOD, GNP would grow at 3.1 percent and consumption per capita at 1.2 percent (Bond and Levine, this volume, p. ). With a bit of luck that outcome should keep the economy above the incentives threshold. Under the low-productivity scenario, however, GNP grows at 2.1 percent and consumption per capita at only 0.5 percent. At that rate it is conceivable that the erosion of incentives would preclude the stabilization of the growth rate and consumption may decline to the perilous level of the political threshold.

There is a fair chance that the economy can stabilize at the levels of the baseline projection. The long period of declining growth may presage continued decline in the future, but it need not. It may signify instead that the economy has been readjusting from the high growth rates of the past to low but stable growth rates in the future. In that case poor performance in state efficiency or in technological progress need not compel the abandonment of the Conservative model as long as consumption does not fall below the incentive threshold.
III. The Reactionary Model

The political characteristics of a neo-Stalinist reaction are not difficult to portray. One thinks first of a restoration of the power of the secret police, perhaps not quite to the level of the Stalinist terror but well beyond the present level. Contacts with capitalist countries would be greatly reduced, the iron curtain reimposed, a xenophobic nationalism reinstituted, and ideological, political and social discipline generally tightened.

If one asks, however, what changes would have to be made to return to a Stalin-like economic system, the answer is not self-evident. The exercise is a reminder that, however great the changes in Soviet political life since Stalin, the essentials of the economic system have not been that greatly changed. The inclination of the leadership under the Reactionary model is toward the restoration of discipline and order, and they will view their mission as the reassertion of strong central control. But they will find that the clock has moved so little in the system of planning and management that it hardly needs to be turned back very much.

In the organization of central planning, while the political leaders under the Reactionary model may harbor a Stalinist contempt for theoretical economics, the practical value of "optimal planning" would overcome the aversion and it would elicit strong support. For it promises a possibility of centralization of decision-making and control far beyond anything dreamed of in Stalin's time. It is, in the words of a close student of the subject, an ideal instrument for an "autocratic political mechanism" (Katsenelenboigen, 1978, p. 41). However, the
possibility of introducing that form of planning-making is still too remote to be of use in the near future. Short of that, it is difficult to imagine that the leaders of the Reactionary economy could contrive ways of extending the scope of central planning that are not already contained or implicit in the 1979 planning decree.

With respect to the management system, because the 1965 Economic Reform has been so greatly modified there are few changes that will be seen as essential for the restoration of central control. No great purpose would be served by eliminating the capital charge or restoring val as the dominant success indicator. Those small ways in which the present-day enterprise manager is less accountable to the center than in the past are not likely to be eliminated. What might be changed is the spread of khozaraschet to the agencies of central management — ministries and chief administrations. To the extent that centralization is the desideratum, the degree of independence that khozaraschet would provide for these units would probably be regarded as unacceptable. The inclination would more likely be to proceed with the creation of the superministries that have been discussed from time to time. Similarly, to the extent that contract-financed production has replaced planned production, for example in the financing of R&D organizations, that practice may well be ended.

Another of the post-Stalin moves toward decentralization was the establishment of the wholesale trade program. That measure started out as the bold idea of offering an alternative to the "material-technical supply" system. The program for a large network of well stocked stores where enterprises could purchase small quantities of whatever was needed never did materialize. What evolved instead was a system of warehouse supply, differing from the Stalinist
system only in that it is managed by the hierarchy of Gossnab rather than by the ministries' own supply organizations. It is difficult to imagine that a neo-Stalinist leadership would find it a matter of some importance to abolish Gossnab and turn its functions back to the ministries. Gossnab may in fact be regarded as the more centralized supply system, even though its operating units are territorially based.

The production associations would very likely find favor with the Reactionary leadership, resembling as they do the vast scale of enterprise that was characteristic of Stalin's time. One of the virtues of that organizational form is that it reduces the task of central planning by "internalizing" within the super-enterprise a certain number of transactions that were formerly inter-enterprise transactions and therefore the responsibility of the central planners. The more self-contained the producing unit, the simpler the job of the planners. There has been a growing trend toward self-containment in recent years that merits more attention than it has received. Many enterprises, for example, have begun to develop their own subsidiary farms to provide produce for their own workers (Rumer, 1980). That development is an extension of a very old practice by management of seeking independence of the uncertain supply system by the practice of "universalism," or the in-house production of as much of their inputs as they can manage. That practice has been criticized in the past, and the present Conservative leadership has taken a dim view of it. In the aforementioned speech Brezhnev was sharply critical of what he described as "a recent widespread practice for local agencies to recruit people from enterprises and to do various kinds of work - help with the harvest, work in procurement organizations, on
construction jobs, on beautification projects and so forth." A Reactionary leadership, however, may be less concerned with the contraction in the division of labor and the loss of the economies of specialization that this "new feudalism" entails. It may be inclined to support large universalist enterprises that encompass a variety of activities and that relieve the burden on the central planners.

Thus planning and management will be somewhat more centralized under the Reactionary model than under the Conservative but the difference in that respect can not be very large. The major differences between the two models will be found not in organizational forms but in policies. High in the list would be a policy of tightening labor discipline. One might envision a return to the severe laws of the late 1930's making it illegal to leave one's job without authorization and providing criminal penalties for such violations as lateness to work, unauthorized absence from the job, and drunkenness. There might also be a disposition to return to the high-investment growth strategy that was associated with the rapid-growth years of the post-war period, although that would require a disavowal of the intensive-growth views that have prevailed subsequently. The corollary of a high-investment strategy would be a return to a policy of slow growth of consumption, or even possibly a decline. That would very likely be a subject of dispute even among supporters of a Reactionary model, on a variety of grounds. First, the popular hostility it would arouse would challenge even the greatly tightened political controls. Second, there would be serious doubts about the efficacy of that strategy at this time in history. Third, since agriculture is no longer the predominant
sector of origin of national income, the growth-rate gains from the suppression of the consumption of the agricultural population would no longer be as great as they were thought to be in the past. However, the recent trend toward the virtual transformation of the collective farms into state farms might be accelerated rather than reversed, on the assumption that the collective farm had been an enforced compromise and the state farm is more consistent with a neo-Stalinist structure.

Since a neo-Stalinist model implies the existence of a neo-Stalin, the leadership must be presumed to possess the power to carry through the changes that it finds necessary. One is a strong drive against "speculators" and the second economy. Another is a purge of the managerial elite, both at the central and at the enterprise level. The Stalin period was characterized by rapid upward mobility of managers which, while purchased at some cost, nevertheless conveyed certain clear benefits: in weeding out dead wood, in cementing the loyalty of the new managers, in lowering their average age, and in generating an unusual level of effort (though perhaps at a cost in the form of increased risk aversion). One might guess that the long tenure enjoyed by the present managerial corps has contributed to a decline in its quality. It is interesting to note, in this context, that in present day China the virtual lifetime tenure of the Party and management elite has come under increasing criticism, and former Vice Premier Teng and his supporters seem to be determined to try to end that practice. A new and secure Soviet leadership might very likely see things the same way though perhaps not with respect to themselves.
Finally, we are likely under this model to see a return to a policy of relative autarky, in an effort to reduce the volume of contacts with the West. Some level of import of advanced foreign technology would be maintained, but the new regime is likely to place a greater weight on the ideological costs of involvement with the West and to assign less value to its economic benefits than the Khrushchev-Brezhnev governments.

In evaluating the prospective economic performance of the USSR under the Reactionary model, one tends to regard it as a mere romantic nostalgia for a simpler and in some ways better age that never really was and that could not be successfully restored under present-day conditions. But it would be an error to dismiss it entirely, for it might well bring some benefits of a purely economic kind.

For one thing, it might offer some short-run gains in the forms of the freeing up of the "hidden reserves" which are so often the object of special campaigns. A few well-publicized trials and convictions might lead to the disgorging of excess inventories and a scaling down of the diversion of resources from public to private uses. The tempo of production is likely to be sped up and labor discipline tightened generally. It would not be surprising if the change were followed for a time by a significant rise in productivity and output.

If the economy is indeed characterized by a large degree of under-employment, in the form of excess numbers of workers whose marginal productivity is very low, as many Soviet economists claim to be case, the tightening of political controls in a time of labor shortage may make it possible to launch an effective drive to reallocate labor to more productive
uses: One can imagine a campaign in which every enterprise would be obliged to deliver a quota of young workers to be relocated to the labor-short areas in the East, much as the collective farms once delivered their quotas for the staffing of new industrial enterprises. Whatever form it finally takes, the neo-Stalinist regime would very likely regard the reallocation of labor as one of its prime objectives, and that may be expected to have a favorable impact on economic performance.

In the longer run, it is possible that the re-centralization of economic activity may also produce some economic gains. The view is sometimes expressed that the present-day Soviet economy is the worst of possible worlds. Change has not proceeded far enough to yield the benefits of genuine decentralized markets, yet the central planning and management system has given up control of a variety of functions in the interest of decentralization. The system, according to this view, is neither flesh nor fowl and enjoys neither the advantages of true markets or of full central planning. Either alternative would be better than the particular mixed economy that has evolved out of the Khrushchev-Brezhnev regimes (Zielinski, 1973, pp. 312-321).

In evaluating this point of view, one may question, as we have, whether the reforms of the post-Stalin years constitute a significant degree of decentralization. Nevertheless there may be merit in the argument that many of the forms of decentralization have brought little genuine benefit. An instructive case is the conversion of the R&D institutes from budget financing to contract financing, a change that was introduced for the purpose of increasing the client's interest in and power over the work produced by the institute. The instrument of a contract is crucial to the operation of a market economy, and
it may seem that the replacement of administrative orders by contracts in the Soviet economy is a measure of market-like decentralization. However, the contexts are so different that it is an error to associate the word "contract" with any of the real functions played by that instrument in a decentralized economy. For one thing, the client regards the payment for the services as made with "the government's money"; if it is in the enterprise plan, financing is provided for it in the plan. Secondly, the contractor's income is limited by the conditions of the incentive structure. Regardless of how profitable the innovation is, the size of the reward is stipulated in the statutory incentive schedule, and the balance of profit is simply appropriated by the Ministry of Finance as a "free remainder." It would be an exaggeration to say that there is no difference at all between a management system in which the R&D institute operates under a plan and reports to an official in the Ministry, and one in which it operates on the basis of contracts entered into with enterprises. But the nature of the dependence of a market-economy firm on its contracts, and that of a Soviet firm on its contracts, are of different orders of magnitude. In that sense this act of formal decentralization, like so many others, is more a matter of detail than of critical importance in the decision-making process.

Plan-making should proceed under the Reactionary model in much the same manner as under the Conservative model. Nor is there any reason why, with intelligent administration, innovation should not proceed as well under a Reactionary model as it does at present. The same material incentive system would be employed as at present, and the prestige of science would be undiminished. Presumably the tightening of political and ideological controls
would not extend to the extremes of Stalinist terror, nor to Lysenko-like constraints on science. The major loss perhaps would be that which would result from the decreased level of scientific contact with the more advanced countries, including very likely some decrease in the import of advanced technology. But if the leadership should accept realistically the policy of the permanent technological lag, the loss would not be regarded as very large. Only as long as the objective is to overtake and surpass the West in technological attainment would the decrease in scientific contact be of major significance.

The prospects for agricultural performance are probably much poorer. The continued transformation of the collectives into state farms will satisfy some aspirations for ideological purity, but it is not likely to reverse what comes through the literature as the widespread demoralization of the agricultural labor force. Restrictions on private subsidiary agriculture are likely to be tightened, with a further loss in agricultural output. Agriculture may well be the sector in which the Reactionary model will encounter its major failures.

I conclude that, with the exception of agriculture, the economy may exhibit some sharp short-run gains relative to the recent past. It is also entirely possible that in the longer run it could also outperform the Conservative model, particularly if it is successful in tightening labor discipline and in massively reallocating labor among jobs. However, a major condition is that it avoid the excesses of Stalin, for Stalin was the worst part of Stalinism. An intelligent Reactionary leadership may well squeeze more out of the economy that the cautious and compromising leadership of the recent decades.
IV The Radical Model

If the Reactionary extreme is the recentralization of planning and management, the Radical extreme must entail the decentralization of planning and management. The characteristics of the model may be taken from the Yugarian experience. One may think of it simply as central planning without directive targets to enterprises. But that innocent-sounding formulation involves more than a simple modification of the centrally planned economy. For without the power to assign directive targets to enterprises, much of the fabric of central planning unravels. If enterprises cannot be required to produce according to directives, they cannot be held responsible for the delivery of specified intermediate materials and supplies, and the time-honored system of material-technical supply must be largely abandoned. In the absence of directive targets, the criteria for evaluating enterprise performance must be modified, and it is then difficult to imagine any criterion other than some suitably modified form of profit. But if profit is to serve as the dominant criterion of performance, it will become the effective objectives function for management, and it is then necessary to assure that the prices and costs in terms of which decisions are made are reasonably reflective of marginal social benefits and costs. That must entail the abandonment of forty years of centralized administration of average-cost-plus-normal-profit pricing. Similar changes would have to be introduced in the management of the labor market, the financial system, and in other parts of the economy.
Party and Government control of the economy would very likely continue to be maintained in several areas. First, most investment, particularly investment in social overhead and in new plant and equipment, would continue to be a central function, and it would become the most powerful instrument for determining both the rate of investment and the direction of growth. Investment would be financed by taxation, on profits and personal income, and also on the basis of a capital charge and depreciation allowance. That is, the state would continue to own all productive assets, and would require a return on them from the collectives that hold them in trust. Incentives would be derived from some profit-sharing plan.

Second, the state would continue to maintain an interest in prices, primarily in order to prevent excessive use of market power to maintain monopoly prices. To the extent that the objective of state policy was to trade some efficiency for equity or for some other social goal, the option of price regulation would be maintained for that purpose as well. The legitimacy of selective state price control would be based not only on state power in general but on the state ownership of the assets of enterprises. That is, the state continues not only to own the enterprise but to exercise national sovereignty.

Third, it is safe to say that the Soviet leadership will have very little interest in supporting self-management or other forms of worker control. The more delicate problem is the policy to be taken toward the possible increase in involuntary unemployment.

Fourth, income taxation (or perhaps consumption taxation, which would make more sense in an investment-conscious economy) would be relied upon to
regulate income distribution. Commodity taxation could be employed for financing public expenditures, but it could not be used to regulate the powerful new entrepreneurial forces that one would hope would arise and would tend to widen the income distribution. For if the Radical model succeeds in generating vigorous entrepreneurship, there will be large incomes to be earned in eliminating disequilibria in the centrally planned economy. The function of eliminating equilibria has been one of the main economic responsibilities of the Party in the past (Grossman, 1981). The income-distribution problems will be particularly pressing during the transition period because of the large disequilibria inherited from the period of central planning that have not yet been diminished by market forces.

Turning to the question of how the Soviet economy might fare under the Radical model, one must begin with such hard evidence as we have on that type of system operating in another country. The form of radical decentralization that the Soviets are most likely to draw upon is the New Economic Mechanism introduced in Hungary in 1968. One conclusion is clear; Hungary has produced no Economic Miracle. When the East European countries are ranked by order of their long-term growth rates, Hungary places at about the center of the group, behind such less-developed countries as Romania and Bulgaria, as one would expect (Marer, 1977). Nor has that relative position changed, for while Hungary's growth rate increased in the years following the 1968 reform, so did that of most of the other countries which retained their central planning systems (Portes, 1977). Per capita consumption increased during 1970-79, but that was also the case in Romania during the same period. It is true, however, that Hungary was particularly hard hit by adverse changes in its markets.
abroad, and suffered from a number of costly policy errors while learning to control the new economic mechanism. Under the circumstances, Portes concludes, Hungary probably did better than it would have done under the old central planning system.

One suspects that the statistical record may have missed something important. Most knowledgeable observers, including Hungarian economists who tend to be among the most severe critics of their own economy, report that without question there has been a considerable improvement in the quality of goods and services generally. The usual formulation is that the growth rate performance has not been distinctive but the quality of goods and services has increased greatly. An alternative formulation might be that the quality of goods and services has increased greatly but the growth rate performance has not been distinctive. If a significant quality change can be attributed to the system change, that is no mean claim. Perhaps the judicious conclusion is that the Hungarian economy performs generally better under the new mechanism but not by an order of magnitude. Certainly one hears no Hungarian pining for the good old days.

Hungary is no Japan. But then again the USSR is no Hungary, and one must entertain the possibility that the new economic mechanism in the USSR might perform better or worse than in Hungary. In one major respect the USSR is like Hungary. The Hungarian reform has been limited by a set of political considerations, which include a commitment to extensive job security and to strict limitations on income differentiation (Granick, 1973; Portes, 1977). Those same considerations are likely to
prevail in the USSR and to limit the effectiveness of the reform in the same ways. The USSR has one potential advantage in the size of the domestic market, which could yield some of the benefits of inter-enterprise competition, but job-security and income differentiation concerns could spill the wind out of the sails of competition. There is no cogent reason for expecting the USSR to perform better under this type of decentralization than Hungary.

There is one reason, however, why the USSR might be expected to perform worse. Western analysts have been struck by the vigor with which old patterns of the centrally-planned system reasserted themselves under the new Hungarian decentralized system. Hungary, however, had lived under central planning for only two decades. The managers, politicians and economists who engineered the reform of 1968 had lived the first thirty-odd years of their lives in a market economy. They found no mystery in a system in which no one tells the enterprise what it should produce and from whom it is to obtain its supplies. Many, we may also suppose, had conceived a certain fondness for aspects of that kind of economic arrangement, socialists though they are. In the USSR, by contrast, hardly a soul is now alive who remembers such a system. The notion that somehow the "right" amount of coal can be produced even though no one tells the coal mines how much to produce is not an idea that is easily grasped if one has not lived it. I can cite two pieces of evidence for this view. One is a recent study by ICA on Soviet perceptions of the U.S., based on interviews with Americans who have had close associations with
Soviet officials at high levels of authority. The study reports that "Soviets who study the U.S. have long assumed that hidden somewhere in the economic system is the key to American success, and that there must be a planning mechanism for the American private sector." Even Soviet experts on American management and industry "seem puzzled that the private sector has no apparent planning center. They know that the system works, but they are puzzled how" (Guroff, 1980). The second piece of evidence is the observation by a prominent emigre authority that most Soviet economists sincerely believe the price mechanism to be only a temporary necessity (Katsenelenbolgen, 1978, p. 15). While there is a sophisticated minority who have learned to comprehend the nature of general-equilibrium decentralized systems, they are not the ones who will be managing the government and economy. The "legacies" of the centrally planned period that Neuberger once identified in the case of Yugoslavia have been found to operate in the Hungarian economy as well (Hewett, 1980; Neuberger, 1968). The legacies of a half century of central planning must be expected to be particularly restrictive. Kenneth Boulding once remarked that the bus from capitalism to socialism runs only during the early stage of capitalism. If a nation misses the bus, capitalism is there to stay. The same may be said of the bus from central planning to socialist markets. The Hungarians caught it in time, but central planning has endured so long in the USSR that the Soviets may have missed the bus.

There are two aspects to the legacies that one structure bequeaths to another. The first may be described as the human capital aspect. In moving from one technology to another, while new capital is being built up in the
form of knowledge and experience in the operation of the new technology, old capital is being lost as knowledge and experience of the old technology disappears. That process applies to social as well as physical technology. There is a vast stock of human capital that supports the operation of a decentralized economy that is lost after a few generations of not having been learned and used.

The second feature of the legacy is the large number of points in the old system that are in disequilibrium with respect to the requirements of the new system. I refer to the structure of productive capacity relative to the structure of the demand for output under the new system, and similarly with the structure of wages and prices. Because of supply inelasticities, many of those disequilibria are likely to be large, and to endure for relatively long periods of time, making for potentially large rental incomes. It is doubtful that the market processes under the new system could readily close those disequilibria without the appearance of very large inequities. After a half century of central planning, those disequilibria in the USSR are likely to be of massive dimensions, and therefore a source of a great deal of social tension and economic strain.

For these reasons the Radical model established in the USSR may not secure even that modest improvement in economic performance that it secured in Hungary. And yet there could hardly fail to be some gains in the quality of goods and services, similar to that reported in Hungary. The requirement that a producing unit be obliged to decide what to produce by consulting potential purchasers rather than by instructions from the ministry -- which is the heart of the model -- cannot fail to discipline management to respond
actively to demand, providing that demand is not in excess. To the extent that it is politically difficult in socialist countries (and increasingly in capitalist) to permit the market to determine the penalties for failure, the tightness of that discipline is attenuated, but it is likely to prevail to a greater extent than under the central planning of output. Similarly the enterprise as purchaser -- now both obliged to and permitted to seek out its own sources of supply -- is likely to assign a higher place to cost considerations in its calculations. These observations apply also to the quality of innovation. If the decision to introduce a new process or product is genuinely that of the enterprise, it cannot fail to be more resistant than in the past to pressures to adopt inferior work produced by the R&D centers, and more inclined to seek out and introduce genuinely superior innovations. Again, to the extent that the politics of distributional equity cuts into the rewards for risk-taking, the beneficial effect of the Radical model on innovation will be attenuated.

Perhaps that is as far as speculation should to be permitted to range. My judgement is that the USSR under the Radical model would experience some benefit in the quality of its goods and services and in the rate and quality of technological innovation, but to a degree not quite equal to the modest gain experienced by Hungary.

V. The Liberal Model

I call the Radical model by that name because it involves the total abandonment of directive target planning. From the present Soviet perspective it is difficult to get more radical than that without being downright revolutionary. This last model is properly called Liberal because it conserves the traditional planning methods for most of the economy while liberalizing the present restrictions on private initiative.
It might also be called a neo-NEP model. Like that first great reform, it would come as a response to mounting economic difficulties. In the present case those difficulties are not nearly as critical as they were at that time, but then neither is the scope of this reform as extensive as the earlier one. The heart of this reform, however, is the same as that of the other; the withdrawal of the socialized central planning sector to the "commanding heights" of the economy. This time, however, the "commanding heights" comprise the overwhelming portion of the whole economy. Its boundaries may be demarcated by whatever limits the leadership finds politically and economically optimal. Within those boundaries the economy operates as in the past, with enterprise directive targets, material-technical supply, centralized price administration and the rest.

Outside of those boundaries, however, individuals or small groups would be encouraged to engage in any economic activity for private profit. They would be permitted to employ the labor of other people; wage rates would presumably not fall below the levels in the state sector, which remains an employer of last resort. The size of the private enterprises would be limited by law; initially the limit would be fairly small, but if the reform were successful the limit might be raised in the course of time. Enterprises would be permitted to own capital and to rent land from state agencies. They would be required to file periodic reports with the Central Statistical Agency and with the Ministry of Finance, on the basis of which taxes would be levied.

Neo-NEP enterprise would flourish in those activities in which smallness of scale has a comparative advantage. First is the consumer service sector; food services, home care services (clothing repair, washing and cleaning, plumbing,
carpentry) and appliance repairs. Second is handicrafts and the manufacture of consumer goods in short supply (warm winter clothing) or of higher quality than is produced by state industry. Third is all manner of retailing services; small shops that purchase both state-produced and private-produced goods and compete with the retail services provided by government shops. Fourth is construction work by small artels for both private persons, cooperatives, and private and state enterprises. Fifth is special-order and job-lot production work for industry. Sixth is the supply of specialized services to industry, like R&D and technical consulting. The supply of goods and services to industry is particularly important because it would provide the flexibility that state planning is unable to offer. It may serve the function that small-scale enterprise serves in the modern oligopolistic capitalist economy. In Japan, for example, small-scale enterprises take up the slack of the business cycle and serve as valuable supplementary sources of supply for the large corporations. In the U.S. the small enterprise is often the vehicle for innovations which, if successful, are subsequently bought up by larger firms. It is very likely, as Dr. Kvasha (1967) argued, that the absence of the small enterprise is a significant gap in Soviet organizational structure for the promotion of innovation and for industrial efficiency generally, a gap that must have widened since the Production Association reform.

Several critical decisions would have to be made on how the neo-NEP sector would transact with the state sector. The first is the conditions under which private enterprise may purchase materials and equipment from state enterprises. One possible arrangement is that the physical output targets of state enterprises be divided into two parts, the quantity to be delivered to other state
enterprises, and the quantity to be sold to private enterprise. The state deliveries are handled by the planning agencies on the basis of the standard method of material balances, while the deliveries to private industry would be handled on the basis of market demand analysis. The market fund thus may serve as a useful balancing item for the central planners. Suppose for example, that in the first trial balance of wood nails, the planners find that the state industry demand for nails exceeds the supply proposed in the draft enterprise production plans. Balance could then be attained simply by reducing the quantities that the enterprises had originally proposed for the market fund, and increasing the quantities in the state enterprise fund. The consequence could be that in that year private industry would have to scramble for nails, develop substitutes, or reduce their output; or resort to bribery, to which we will return presently.

Second, a decision would have to be made on the prices of transactions between state and private enterprises (transactions between private enterprises and consumers need not be regulated). One approach would be to employ a purchase tax on sales by state to private enterprises. The former would receive the same price for its product regardless of whether it was sold to a state enterprise or to a private enterprise, but the private purchaser would have to pay the state tax. The purpose of the tax is partly to recapture any subsidies in the enterprise wholesale price, and partly for the political purpose of strengthening the competitive position of state industry against private enterprise. That is to say, private enterprise would have to contribute more than a marginal gain to the economy in order to justify the ideological cost of tolerating it.
Third, the private retail network would provide a higher quality and larger range of many consumer goods and services than are available in the state stores. The higher prices may kindle popular hostility if it is felt that the private stores are "crowding out" the distribution of state-supplied goods. It is therefore important that the state continue to supply the traditional array of consumer goods and services at conventional prices. They would continue to be rationed by queuing, while those whose incomes or preferences are different can purchase at the private stores.* Similarly, the state sector must continue to act as employer of last resort, as it in fact does now. Workers would not therefore be at the mercy of their employers as in a capitalist system, for if they are dissatisfied with the pay or working conditions in the private sector, their alternative is not unemployment.

For evidence on how the economy would perform under this model, one might go back to the experience of the original NEP. But the more relevant evidence is that of the present-day second economy. The lesson that is usually drawn from that peculiar institution is that the centrally planned economy tends to spawn corruption. The story may be told differently, however. The lesson of the second economy is that within a socialist system there is a vast store of initiative that cannot be tapped through the normal institutions of central planning. To benefit from that great productive potential, the economy must

*It may not be possible to mollify populist egalitarian hostility to the two types of stores. One of the demands of the Polish workers in the 1980 strike was the abolition of the "special shops" open only to the elite. The private enterprise shops would be open to all purchasers, but they may kindle resentment nonetheless.
provide some institutional arrangement in which it can flourish in a socially responsible way. The introduction of a controlled domain of limited private enterprise would be such an arrangement.

Every participant in this conference can supply his own anecdotes on the kinds of initiative that burst forth even under the present inhibiting conditions. I shall mention only two that I have found particularly instructive. One is the case of the Fakel' firm. It was formed by a small group of engineers and scientists in Novosibirsk for the purpose of providing research, development and innovation services to industry on a spare-time basis. Operating out of a few dormitory rooms, they solicited contracts from enterprises, drawing upon consultants as needed from specialists in the area. In about four years they received 3.5 million rubles from 263 contracts, which they claim to have saved 35 million rubles for the economy, for which they received fees for themselves and their consultants. Their activities sparked an intense controversy, and they were finally forced to close down because of the objections of the State Bank and the Ministry of Finance (Lowenhardt, 1974). The second is the case of the agronomist I. Khudenko, who was given a free hand in farming a tract of unused State Farm land. Operating under the form of an "extended link," Khudenko and a few colleagues ran the operation virtually as a private farm with phenomenal success. The controversy was more bitter in this case and Khudenko was found guilty on criminal charges and died in prison in 1974 (Katschenelenboigen, 1978, p. 66). The vast store of tales like these testifies to the existence of a powerful innovative and productive potential in the nation that would flourish under the Liberal model.
Like the Radical model, the Liberal model is that of a "mixed economy." There is a critical difference between the two, however. The Radical model is a mix of central planning and markets, but all enterprises are state enterprises. What is radical about it is the abandonment of directive target-planning of enterprises, which is the heart of Soviet-type central planning. The Liberal model retains the traditional form of central planning for most of the economy. It is a mix of state enterprises and private enterprises. I would not quarrel with the view that a mix of that kind might be regarded as more radical than the foregoing of directive planning. The main point is that the two models reflect different judgements about the pathology of the Soviet socialist economy. The Radical model reflects the view of the major body of western economic theory of socialism deriving from Lange and Lerner. That theory is preoccupied with issues of Pareto-efficiency and looks upon markets as a way of increasing the efficiency of socialist economies. The Liberal model directs attention not to allocative efficiency but to something like Leibenstein's X-efficiency. It says, in effect, that the problem of centrally planned socialism is not in the central planning but in the socialism, or at least in the monopoly of socialist organizations. Concern with that issue, incidentally, can also be found in Lange (1936) in his remarks about the danger of the "bureaucratization" of economic life even in his market model of socialism.*

*There is a third position, which may be taken as the Yugoslav interpretation. This interpretation shares the Radical view that markets are superior to central planning, and it shares the Liberal view that enterprises should not be state-owned. It parts company with the Liberal view, however, in holding that the best alternative to state-owned enterprises is not private enterprise but self-managed enterprise. The notion of worker self-management is so far out of the bounds of the thinkable in the USSR that I have not explored that model here.
If the evidence on the Radical model is the experience of Hungary, the relevant evidence on the Liberal model, I have found to my surprise, is the experience of the GDR. That stern government permitted private craftsmen to operate throughout its history, and while there was some retrenchment in 1972 by the nationalization of the larger private firms, small-scale production continued to be given the "fullest support of the Socialist Unity Party and the state" (Scott, 1974, p. 196). In their judicious comparison of the performance of the two Germanys, Gregory and Leptin (1977) credit the toleration of private enterprise in handicraft, retail trade and agriculture in the GDR as one of the reasons for the success of the incentives policy of the country. The dismal state of Polish agriculture might be regarded as evidence of the failure of private enterprise in a socialist context, but the stronger argument is that the fault in that case was the gross mismanagement of agriculture policy by the national leadership. For the USSR under the Liberal model, the prospect for agriculture is not fullscale private farming after the Polish example, but perhaps a full commitment to the "link" as the basic unit of socialized agriculture. Like the "team" in the People's Republic of China, the link can be made sufficiently small to restore one of the central elements of X-efficiency; namely, the direct association of one's income with one's effort. Along with the elevation of the link, the spirit of the Liberal model requires that the State give full support to private subsidiary agriculture. The link and the private plot would constitute the kind of "wager on the strong" with which an earlier Russian reformer had sought to release the peasant's initiative from the restraints of the commune.
Two issues that would have to be faced are corruption and income distribution. The first issue is not whether the Liberal model will produce corruption. It certainly will. The question is rather whether it will be larger in scope and more detrimental socially than that which is presently generated under central planning. The answer is not at all self-evident. The large expansion in lawful opportunities for earning private incomes will increase the gains from the illegal diversion of state property to the private market. On the other hand to the extent that the private sector succeeds in closing the disequilibrium gaps, the volume of bribes currently demanded by custodians of state-owned goods in short supply will be reduced. Moreover the Liberal model would convert into acceptable "red markets" some of the variously colored markets that Katsenelenboigen (1978) has detailed, thus reducing the volume of corruption by defining as legal that which was formerly illegal. The principal objective of this model, however, is not simply to distribute already produced goods more efficiently but to stimulate the production of new goods and services that would not otherwise have been produced. Corruption in that kind of activity would have less undesirable social consequences than that which merely redistributes real income in favor of those who have access to goods and services in short supply. Hence it is quite possible that corruption will be less of a problem under the Liberal model than under the present system.

More than any of the other models this one will test the limits of the income inequality that the society is willing to tolerate. The period immediately following its adoption will generate the largest individual incomes because of the large disequilibria inherited from the present system. In the course of time, however, as the backlog of unrepai red TV sets is worked off and the supply of
hand-knitted wool gloves expands, the initial transient windfall incomes will moderate in size. The eventual steady-state income differentiation may still be larger than the political system can tolerate. In that case it would be perfectly reasonable for the leadership to take measures to rein in the scope of the private sector. A society has the right to decide what combination of income and inequality it prefers. An informed social choice, however, requires that the price of greater equality be known. The experiment with the Liberal model will provide both the leadership and the population with a clear measure of the price currently being paid, if there is such a price, for the prevailing degree of equality; and the price that would have to be paid if the Liberal model is eventually abandoned.

Finally, the Liberal model has the virtue of administrative and political flexibility. The Radical model would be difficult to implement in parts; to operate certain sectors without target planning while in other sectors traditional central planning prevails. As in Hungary, it is an all-or-nothing proposition. The Liberal model, however, is infinitely divisible. Certain types of private production can be declared lawful while others remain unlawful as at present. If either the level of corruption or the degree of income differentiation should exceed the politically acceptable, the boundaries of the private sector can be constricted. The income distribution problem can be separately controlled by tax policies that can make whatever discriminations are thought to be desirable.

The longer any model endures, the greater are the interests that become vested and the greater the resistance to reversals of policy. But that risk is slight under the conditions of present-day Soviet society. One need only to think back to the original NEP to be convinced of the difference. At that time NEP was a
risk of major proportions because the state-run commanding heights didn't command a very large part of the economy. The political fears of the Left were entirely justified; the strengthening of private enterprise in trade and small-scale industry, and particularly in an agriculture that engaged some 80% of the population, could very well have eventually generated a political force to challenge the usurped power of the relatively small Communist Party. The Liberal model poses no such threat in Soviet society today. The ideological awkwardness would be small compared to the economic gain from what may be the most effective model for the Soviet economy of the future.

VI. Political Issues

When the choice is finally made, the economic prospects under the various models will no doubt enter into consideration. But it is politics and not economics that will dictate the choice in the end. In reviewing the array of political forces I shall first discuss the political disposition of the major social groups, and then consider the political viability of each of the four models.

For the urban working class, there are two primary concerns; job security, and the level of consumption. The evidence for the latter comes primarily from the Polish experience, and we may err in transferring the lesson directly to the Russian working class, which may be much more compliant. There is no direct evidence that Soviet workers are prepared to go to the barricades over the price of meat, but the Soviet leadership acts as if they thought that might occur. What is more certain is that a decline in real income would at some point lead to an attenuation in incentives, with possibly greater consequences for productivity and growth.
The centrality of job tenure to the workers is evident in the longstanding inability of the Soviet leadership to find a politically acceptable way of redistributing workers among jobs. The Shchekino experiment was the boldest move to date in that direction, but it has not had a major impact. Evidently the prospect of dividing up the wages of their dismissed comrades did not prove to be an incentive sufficient to crack labor's solidarity on this issue. Soviet analysts of innovation regard the difficulty of dismissing technologically redundant workers as a major obstacle to innovation (Berliner, 1976, ch. 5).

Nearer at hand is the evidence of the Hungarian reform, much of the potential of which had to be foregone out of a concern to avoid a clash with labor on this issue. The Yugoslav experience, on the other hand, testifies to the capability of at least one socialist government to survive extensive unemployment. But the Soviet leadership is probably correct in its own assessment that it is not an issue on which it would want to be tested.

The key to peasant sentiment is the private plot. That is the institution that is the focus of his potential political involvement, and alterations in the official status of that institution have a major impact on his material and psychic life. By contrast, the steady conversion of collective farms into state farms seems not to have aroused a ripple, suggesting that the difference between those two organizational forms has long since ceased to be salient to the peasants. One has the impression that farm life continues to be highly unattractive to young people who must be restrained from fleeing from it by social and legal pressures. The attachment to the private plot suggests that the peasants would be attracted by the possibility of greater individual autonomy over a larger piece of land. But they have had no experience with the fluctuations of
farm prices and incomes that accompany that autonomy in uncontrolled markets, and it is not at all certain that they would gladly pay that price for a larger say over their own land.

The intelligentsia are likely to be the least resistant to change in the economic mechanism since the basis of their social position is least system-specific; there will be jobs for journalists and engineers under any likely economic arrangement, though the stars of some would rise while others fall. The liberal intelligentsia are likely to be disposed toward more decentralized systems that allow greater freedom for individual action. But the technical intelligentsia may well be disposed toward more conservative systems. Sharing with enterprise management the responsibility for trying to keep the trains running on time, and with no practical experience in the operation of decentralized systems, they are likely to see the solution in better planning, organization and management. Perhaps only among economists has there developed an understanding of decentralized systems and some attraction to them, but close observers regard their number to be rather small. For most economists Soviet means central planning (Katsenelenboigen, 1978).

Enterprise management are second to none in their grumbling about the inefficiencies of the centrally planned economy within which they operate. The general view, however, is that their grumbling is of a highly conservative kind. They want the supply system to work better and the ministry to be less bureaucratic in attending to the needs of their enterprise. All the vibrations suggest that they are quite content in principle with a system in which they are told by someone else what to produce and someone else has the responsibility for providing them with the inputs they require. It is doubtful that they would see
much virtue in a system that required them to take the risks of guessing what unspecified customers would be willing to buy from them and that permitted other enterprises to steal away their customers. Doubtless they believe they merit higher incomes than they earn, but they are aware that the combination of their pay, perks and prestige places them in the upper echelons of the society. They have achieved as a class a form of job security they never attained under Stalin, when the rapid turnover of managers was a characteristic feature of their lives. Most have held their jobs for very long periods, a state of affairs that disposes them to both managerial and political conservatism. The question of the political power that management can muster in defense of its interests has been the subject of controversy (Azrael, 1966). The most recent test of that power was the introduction of Production Associations, which threatened a substantial number of enterprise directors with the loss of their authority to the general directors of the Associations. The evidence is mixed. Many Associations were indeed formed, and although initially a controversy broke out over the status of the directors of the merged enterprises, that status was eventually largely submerged (Berliner, 1976, pp. 136-143). On the other hand, the Production Association reform appears to be proceeding very slowly, and one of the reasons is thought to be the intense opposition of managers, as well as of some ministry personnel (Gorlin, 1976). The evidence is not conclusive because this reform divided the interests of managers; those who expected to be promoted to the general directorate of the Production Associations had a great deal to gain. Hence it cannot be thought of as an issue on which management would have a unified interest. Nevertheless the rear guard action mounted by what must have been a substantial number of managerial officials was evidently successful in retarding the pace of the reform and constraining its scope, perhaps permanently.
With respect to labor relations, the demise of the Shchekino experiment suggests that management has little stomach for the job of taking on labor in a campaign to cut costs by dismissing redundant labor. Nor would they gladly share their power with worker representatives under some form of genuine self-management or democratization of the workplace. The system of central planning and management thus makes for a very comfortable position for enterprise management; protecting them from workers' demands for participation that might arise under greater decentralization (Höhmann, 1980), and relieving them of the responsibility to economize on labor in ways that would threaten workers' job security.

About the interests of the central management -- the ministerial bureaucracy -- there can be no doubt. They are to central planning as capitalists are to capitalism. Close to the pinnacle of power and prestige, they are as "establishment" as one can get, save perhaps the Party. The more centralized the system of planning and management, the larger the power they wield. To be sure, under most conceivable models of socialism there will still be national economic ministries, for the state will always be obliged to implement national policies and to monitor the activities of enterprises; and for that purpose national bureaucracies are necessary. But to be a ministerial official under decentralized conditions is to be a much less substantial person.

This group is likely to be the strongest defender of the system of central planning and management against efforts at substantial change. Yet their power would be limited in a conflict with a strongly supported Party policy. The classic test was Khrushchev's Territorial Reorganization, which was directed against precisely this stratum of officialdom and virtually dismembered it,
with large numbers of ministry officials being sent out to the provinces to staff the new territorial economic councils. Their return to office with the restoration of the ministries after Khrushchev's departure is evidence not of their power per se but of the growing awareness that that reorganization had been a failure and needed to be reversed. More recently their power has been tested again in what is reported to be extensive ministerial opposition to the Production Associations. That reform has created a class of new association managers presiding over much larger domains than the old enterprise managers and therefore much more substantial people who are less easily intimidated by ministerial power. Here too, however, the opposition was a rear guard action and the reform has been pushed through, although the slowing of its pace may be attributed to continued ministerial as well as managerial resistance (Gorlin, 1976).

I take it as self evident that the Party and policy apparatus must be regarded as conservative in economic matters. The same is probably true of the military officer corps, although it ought not be surprising if the nature of their responsibilities lay them more open to alternatives. The responsibilities I have in mind are the maintenance of a fighting force equipped with the armaments required to defeat a coalition of countries all of whom are more technically advanced. No other group in Soviet society confronts foreign competition in so stark a form. I know of no evidence on the subject but it should not be surprising to learn that the military, in the vital quest for technological advance, and of necessity knowledgeable about the technological processes and products of its potential antagonists, might prove to be a force for greater autonomy at lower levels of the production system.
About the Politburo itself, three things may be said. First, in the short- or medium-term the composition of that body will change greatly. Precisely what the political-economic orientation of the new leadership will be is impossible to know, but it is a good bet that it will feel freer to entertain a wider range of alternatives than can be expected of the present leadership. Second, a younger leadership is likely to take a longer-run planning horizon and may therefore be more impelled to take action, drastic if it need be, to arrest the decline in growth and to "get the economy moving again." Third, any drastic action must be threatening to some substantial interests in the country. The new leadership will therefore have to establish a power base upon whom it can rely for support, as Khrushchev sought to rely on the provincial Party apparat. For these several reasons, of all the groups we have discussed in this review, the top Party leadership may be the most likely agent of change in the economic mechanism, carrying it out as a "revolution from above."

Among the national minorities, nationalist sentiments may conflict with class interests. Russified or Sovietized Party officials and managers are likely to see their interests in the same way that their Great Russian colleagues do. But where nationalist feelings run deep, centralization means Moscow which means Russian domination. A significant portion of the Party and managerial groups among the minorities are therefore likely to support decentralizing measures primarily because they will reduce the power of Moscow over their lives. The Yugoslav experience may appear to suggest the contrary; there the smaller southern republics have promoted centralization while the larger northern ones have pushed hard for a weakening of central government. One of the major factors in the Yugoslav case, however, is the division of the country among the less
developed republics and the more developed. It is the poorer republics like Montenegro that have fought for centralization because the more powerful the central government the greater the redistribution of income and investment in their favor. For the same reason, the richer republics like Slovenia have supported increased republic power, as a means of slowing down what they regard as the draining of their resources for the support of the less productive republics to the South. The Soviet case is notably different, for at least two reasons. First, republic differences in per capita income and consumption are probably much smaller in the USSR than in Yugoslavia, although I know of no evidence on this question. Second, a number of the national minorities enjoy higher living standards than the Great Russians; particularly the Baltic nations and perhaps Georgia and Armenia as well. Nor are Central Asians notably far behind the Great Russians, if at all. Hence the special feature that operates in the Yugoslav case is not salient in the Soviet. The nationalist-minded members of the national minorities will see the issue not primarily in income-distribution terms as in Yugoslavia but in political terms. From that perspective any reform that will reduce the power of Moscow will command support.

If this review of the interests of the relevant groups conforms even roughly with political reality, it implies that the Conservative model is most likely to prevail unless one of two conditions obtains. One condition is that the rate of growth under that model fails to stabilize at a level above what was described earlier as the incentive threshold. If it falls below that level, the erosion of work incentives would trigger off a new forces that would make for continued decline. Even if the economy did not yet fall to the political threshold, but
certainly if it did, a change to another model would be inevitable. The second condition is that in the succession politics after Brezhnev a new and younger leader either (a) develops a power base strong enough to force a change over the opposition of major vested interests, or (b) wins the support of a major social group, Mao-like, by forcing a change that is strongly supported by that group.

We are not charged, in this conference, to foretell the future; to forecast, in this case, whether either of these conditions will in fact obtain. The probability is large enough, however, to pursue the question of which of the other models might be adopted if the Conservative model is abandoned.

The strongest political support, it seems to me, can be marshalled in favor of the Reactionary model. It is the alternative that does the least violence to the interests of the groups that are most closely tied to the regime — central and enterprise management, the Party apparatus, the military and so forth. There would be some loss to these groups from the restrictions that are likely to be placed on the second economy. But the organized system of special shops would presumably be continued. The experience of the recent Polish workers' strike may lead to a reconsideration of the special shops, the abolition of which was one of the workers' demands. But political wisdom may dictate the retention of those privileges nonetheless, because it is precisely those social groups that would be most counted on to forestall such workers' action.

The Reactionary model would also command strong ideological support from a variety of sources. There are first those Party loyalists for whom strong Party leadership and control of the economy are matters of deep conviction; are believed to be the only proper way to run a Marxist-Leninist society.
Most observers hold that few people in Soviet society are motivated by Marxist-Leninist ideology today, and I do not dispute it. But the ideology I have in mind is not the grand socialist idealism associated with those revered names, but simply the set of ideas on the right way to manage the Soviet state and society that emerged from World War II. In any case, certainly much larger is that portion of the society that would support the Reactionary model because it promises a return to a more orderly, less contentious, and perhaps simpler way of life. Though the words ring strange in Western ears, internal observers report a widespread nostalgia for the "blessed" Stalinist times, when "there was rigid discipline in the country, when there were no difficulties, for example with labor power" (Katsenelenboigen, 1978, p. 57) That this sentiment is also widely held among the elite was corroborated by the ICA survey, which found that while Soviet professionals are attracted to many features of American society, like access to information and freedom of travel, they "believe that similar access by the Soviet narod (people) would unbalance the society" and that "widespread freedoms would lead to chaos in society and perhaps undermine their own positions" (Guroff, 1980, p. 16)

How the narod would respond is harder to guess. It is likely that a strong law-and-order policy coupled with the usual combination of xenophobia, nationalism, anti-semitism and anti-intellectualism will command extensive populist support. The tightening of police controls will affect mostly intellectuals and "speculators," and while there will be some loss in consumption levels from the curtailment of the second economy, it is the producers for those markets and not the consumers who will be dispatched to the camps. If, as I have argued above, the economy will perform somewhat better under the Reactionary model, the extent of that loss may be small.
A critical question is the response to the tightening of labor discipline, which is a major condition for the economic success of the Reactionary model. Certainly the program would have to be presented as part of a great new national campaign, perhaps even packaged as a program to raise the consumption level of the people. Something of the sort would be necessary to sustain the compulsion that would be required to pull workers away from the "collective" in which they have worked all their lives and assign them to work in other enterprises and in other regions. In the short run there is a fair possibility that an imaginative political leadership can pull it off. In the longer run, however, it is more problematical.

The Radical model runs counter to the interests of all the main groups that support the traditional regime. Most of the officials of the central planning and central management bureaucracy would be out of jobs. Enterprises would still require directors, but they are not likely to be the same persons who directed the factories in the past. As in Hungary, an effort is likely to be made to mollify the directors by assuring them of their job security under the new system (Granick, 1973). But the managers whose skills and outlook were cradled in a system of mat-tekhn snabzhenie are not likely to survive in a genuinely decentralized system; particularly if, unlike the Hungarians, they have never lived in one. They are likely to resist this model as strongly as the central managers.

The workers are likely to perceive a decentralized system, correctly, as a threat to their job security. And as in Hungary, the regime would have to give such strong assurances on that score that one of the major potential benefits of decentralization would be lost. Similar assurances had to be given in Hungary (Granick, 1973), but because of its older legacies, the cost would be greater in the USSR.
In fact, in surveying the various interest groups, the only ones that are likely to support the Radical model are the national minorities, a small group of economists and perhaps a smattering of liberal intelligentsia who would support any weakening of the central bureaucracy as a step toward more personal freedom. Perhaps if the model included some extensive decentralization of agriculture as well, it might also command the support of the peasantry.

If this judgment about the very weak support for the Radical model is correct, it raises the interesting question of why the USSR is different from Hungary and Czechoslovakia. In the latter case decentralization had vast support in the country, including eventually large sections of the Party. In Hungary it was perhaps not as extensive but one has the impression that it nevertheless commanded fairly broad support. The difference, I suspect, is that in Eastern Europe the system of central planning is identified with rigid Party orthodoxy and, ultimately, with Russian domination of their countries. To smash central planning is to strike a blow at a Soviet-like Communist Party, and symbolically, at the USSR. From this perspective, hostility to the USSR was an important political factor in enabling the leadership to marshal support in favor of decentralization. But if a USSR is vital in promoting the Radical model, who will be the USSR's USSR? Perhaps China.

If the Radical model is to be adopted in the USSR, it will come about only because the small band of liberal economists have somehow gotten the ear of the new leader and persuaded him that it is the best course for both himself and for the country. But that, as we have argued above, would be a hard case to make, for the Hungarian performance has not (yet) been so successful that its effectiveness is beyond dispute, particularly for the USSR. If the leader never-
theless did decide that the Radical model was the best course for the USSR, he must then face the prospect of engineering a revolution from above, for he will have no support from the conventionally loyal groups. Nor is he likely to turn like Mao to an unconventional group like the students in order to create a new power base. The military might conceivably be neutral on the technical issue of whether the decentralized model will outperform the centralized, but it will hardly rally around a leader who contemplates a new revolution in favor of decentralization. A revolution from above of this magnitude would require that the new leader first concentrate in his hands the personal power of a Stalin. On the other hand, Stalins don't decentralize.

It should now be evident why the Liberal model would command much greater support than the Radical. No one loses his job, for the centrally planned sector operates largely as it did before. The Party leader who introduces that model will, moreover, have a new basis of support in both, the producers in the new private sector, and the consumers who will have access to a significantly improved range of goods and services. For if the assessment presented above should prove to be correct, the population will experience a sharp improvement in the quality of life, sharp enough to leave no doubt about the success of the policy and the person who gets the credit for it.

Among the political obstacles, one thinks first of the ideological. But an imaginative leadership should have little difficulty presenting the model in a favorable light, providing that Mr. Suslov has passed from the scene. It is, after all, modelled on the NEP, and what Soviet leader would not wish to be the one to pick up the baton of Lenin? Moreover the NEP is associated in the public mind with a period of hope and prosperity; I have heard even young people refer to it
as the "golden age" of Soviet history. The Liberal model could also supply the missing part of an ideological puzzle that has been created by the adoption of the notion that the USSR has entered the new historical stage of "mature socialism." It is clear that central planning was the appropriate economic model during the stage of the building of socialism, but now that socialism has entered the stage of maturity the historical process should be expected to produce a new set of production relations. The dialectician should expect a negation of the negation, producing a social formation similar to the older one but on a new and higher plane. Viewed from that perspective, central planning was the negation of private enterprise. The negation of central planning can reasonably be thought to be a new form of private enterprise, but on a higher plane in the sense that it is now socially responsible because it is embedded in a mature socialist society. Moreover since the transition to mature socialism is accompanied by the scientific-technical revolution, the historically progressive economic system is one that enables the society to reap the fullest benefits of that revolution. Central planning was an appropriate economic model in a period in which the task of socialism was to adopt the advanced technology of the time which was already known and in operation in the capitalist world. That historical task having been completed, a new economic model is required that not simply adopts known technology but also produces yet unknown technological knowledge in the age of the scientific-technical revolution. Central planning is the historically correct form for applying known technology, but planning the yet unknown is a qualitatively different task. Hence the rise of a new synthesis, in which the private initiative of socialist men and women serves to promote technological innovation in the matrix of a centrally planned socialist economy.
I conclude that the prospects for change in the system of planning and management depends on the performance of the economy under the Conservative model. If the growth rate should stabilize at a level that may be low but that nevertheless exceeds the incentive threshold, that model will be retained and the century will limp quietly to its end. Chronic cases do not normally evoke extreme measures. Only acute attacks, like depressions or rebellions, galvanize a society into such measures. If the Conservative model cannot stabilize the growth rate even at that low level, the accumulation of social and political pressures will propel the leadership into either the Reactionary or the Liberal models. Both are likely to improve the performance of the economy, but the greater potential lies with the latter. If the counsels of political prudence prevail, however, the lot will fall to the former.


Kvasha, Ia. "Konsentratsia proizvodstva i mel'kaia promyshlennost'." *Voprosy ekonomiki*, 1967, No. 5


