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THE POLITICAL AND ECONOMIC EFFECTS
OF THE 1957 SOVIET INDUSTRIAL REORGANIZATION

<u>CONTENTS</u>	<u>Page</u>
Summary and Conclusions.....	1
I. Introduction	7
A. General.....	7
B. Motivations for the Reorganization.....	8
1. Economic.....	9
2. Political.....	9
3. Strategic.....	10
II. Structural Changes in Soviet Industry.....	11
A. Changes Since 1952.....	11
B. Meetings of the Party and the Supreme Soviet in Late 1956 and Early 1957.....	13
C. The "Theses" and the May Session of the Supreme Soviet.....	14
D. Reorganization of July 1957.....	14
1. USSR Council of Ministers.....	15
2. Ministries.....	15
3. Planning Apparatus.....	15
4. Economic Regions.....	16
E. Party Control Under the New System.....	17

III. Manifestations of Resource Waste.....	18
A. Problems and Their Organizational Remedies.....	18
1. Waste in the Use of Joint Products.....	18
2. Self-Sufficiency and the Failure to Subcontract.....	19
3. Transportation (Cross Hauling, Single Hauls, and Pooling).....	21
4. Hoarding of Surplus Inventory.....	22
5. Organizational Duplication Resulting in the Waste of Human Resources.....	23
6. Joint Resources -- the Case for Amalgamation and Joint Use of Ancillary Activity.....	24
7. Investment Wastes from Planning and Plan Implementation.....	25
a. Disproportions Within a Sector of Industry.....	25
b. Selection of Specific Projects.....	26
c. Diffusion of Investments --Problem of Unfinished Projects.....	28
d. Waste of Resources in Investment Implementation.....	29
B. Summary of the Effects of Reorganization on the Seven Special Cases of Resource Waste....	30
IV. Changes in Decision-Making Procedures and the Effects on Growth.....	33
A. Investment.....	34
B. Wages.....	37
C. Working Capital.....	37
D. Distribution of Supplies.....	38
E. Planning.....	42
F. Decision-Making from the Point of View of the Enterprise Manager.....	44

Table

Production of Industry in the USSR, by Subordination of Enterprises, 1950-55 and 1957.....	12
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THE POLITICAL AND ECONOMIC EFFECTS
OF THE 1957 SOVIET INDUSTRIAL REORGANIZATION

Summary and Conclusions

Centralized planning and control of the Soviet economy induced the evolution of a ramified and cumbersome bureaucratic administrative apparatus. By mid-1957 this structure had come to be typified by large and powerful industrial ministries in Moscow which supervised and often directly intervened in management details of individual enterprises situated throughout the country.. It was to the ministry and its administrations that most of the important operational decisions were referred from the enterprises.

Such a system had proved itself effective in rapidly grafting advanced industries onto the backward Soviet economy. But as the economy became more complex, the inefficiencies of the system became sufficiently obvious to call for some type of reform. Khrushchev himself promoted the ostensibly sharp break with the previous arrangement by establishing regional "councils of national economy" (sovnarkhozy, or CNE's) along existing territorial administrative boundaries with operational responsibility for industrial enterprises contributing about three-fourths of total output, located within their geographic confines. The industrial ministries, both at the union and at the republic level, for the most part were abolished. Thus the previously existing pattern of nationwide subordination and administration according to specialized industry was replaced by a territorial pattern of subordination with some simplification of detail in decision-making at the center.

As might be expected, the scheme for reorganizing the administration of industry and construction, both in its overt content and in its explicit justification, was completely economic. The actual motivations, undoubtedly, were quite complex and included political as well as economic reasons with even strategic considerations perhaps playing a part.

The scheme was launched in the wake of the December 1956 Central Committee Plenum and the February 1957 Supreme Soviet, both of which were confronted by economic problems deemed to jeopardize the prospects for continued rapid economic growth. Nevertheless, jockeying for power by the top leaders influenced the detailing of the reorganization. In any change of this importance it would be unnatural if a political figure did not use it as a vehicle to strengthen his position. Thus when the "anti-Party group" (Malenkov and others) was purged its members were accused, among other things, of attempting to frustrate the reorganization.

The decision to reorganize, its timing, and certain details of its final form appear to have involved important political influences, but economic considerations and the desire for economic improvement underlay the decision and were basic to it.

The reforms carried out in July 1957 were not the first attempt in the post-Stalin period to improve the structure and functioning of the economic system. In fact, the recent change embodies a drastic response to many problems implicitly involved in the pattern of earlier piecemeal organizational and procedural changes.

The reorganization scheme was launched by Khrushchev at a Central Committee Plenum in February 1957, but details first appeared with the publication on 30 March 1957 of the "Theses," proposed by Khrushchev for a countrywide "discussion" before ratification by the Supreme Soviet. As finally adopted by the Supreme Soviet on 10 May, the organizational plan was not markedly different from that foreseen in the original proposals.

The economic-administrative structure of the government was altered by changing the makeup of the USSR Council of Ministers, by concentrating both long-term and current planning in one organization -- USSR Gosplan, by changing the functions of or abolishing most central ministries, and, finally, by establishing sovnarkhozy to which were subordinated the majority of industrial and construction enterprises throughout the country. The most striking aspect of the reorganization of the central organs was the great enhancement of USSR Gosplan's influence in planning and controlling economic activity. Consolidation of all central planning in USSR Gosplan greatly enlarged the role of this organization in directing the economic activities of republics, ministries, sovnarkhozy, and factories.

The role of the Party has also been strengthened, especially at the local level where most boundaries of economic regions follow existing oblast or republic boundaries and local Party units have been assigned control functions.

The principal effect of the reorganization, however, was to create more than 100 (now 104) economic regions, each governed by a council of national economy. On a nationwide basis the councils have subordinated to them enterprises producing about 75 percent of all industrial output; the remainder is either under local government agencies or retained under the few remaining central ministries and special committees.

The analysis that was undertaken in this report in determining the economic effects of the reorganization proceeded along two lines of inquiry. The impact of the reorganization on economic efficiency was investigated first through an analysis of several specific cases of organizational defects that Soviet leaders hoped would be remedied by the new form of organization. Thus seven categories of problems manifest under the former system were selected (for example, waste of resources from cross hauling or from failure to subcontract because of desire of self-sufficiency and the like). An examination was made of the official evidence of "irrationality," the corrective measures that have been taken, and the economic gains or losses resulting from these measures having been applied to these specific cases.

From such an analysis it was clear that some gains were possible. But the magnitude of these gains should not be overestimated. It was found that so many qualifiers had to be introduced when determining the gains from correcting the problems that in only 3 of the 7 problem categories (reduction of excess inventories, extension of subcontracting, and elimination of cross-hauling) were there rather clear-cut evidences of positive effects on economic efficiency. Out of these three categories, estimates by official writers of the potential gain to be had do not indicate a very significant boost to industrial output.

The most important impact on growth will come, of course, in the short run when windfall gains are possible from correction of the specific inefficiencies cited above. It is believed that, once these windfall gains are achieved, the long-run impact on industrial growth will not be very significant.

The second procedure in determining the impact of the reorganization on economic growth was to examine the change (or lack of change) in basic decision-making processes that affect the over-all allocation and use of resources. This inquiry covered decision-making in six aspects -- investment, wages, working capital, distribution of output, planning, and decision-making at the enterprise level -- and was directed at determining whether the authority and responsibility over each aspect had changed. Change was appraised on the criterion of who decided between alternative courses of action in each matter before and after the reorganization in the pyramid of decision-makers from the Presidium of the Central Committee to the enterprise manager.

In the area of investment planning and plan implementation it was found that decisions remain, as before, in the hands of the central authorities. Local authorities continued to decide the use of a small segment of investments, this authority already having been passed down in the period between Stalin's death and the reorganization. Under the reorganization thus far the so-called "rights" given the councils of national economy have shifted little from the former pattern of investment decision-making. The initial delegation of limited authority to the CNE's was severely circumscribed by central controls, and during the first year under the new system there were further restrictions placed on CNE authority and responsibility in this function.

Wage rates and total wage funds for the CNE's and their enterprises remain, as before, set by USSR Gosplan in consultation with the state Committee on Labor and Wages.

In the use of working capital the CNE seems to have less freedom maneuver funds among its enterprises than did the former ministries.

The supply system, from the point of view of the enterprise manager and CNE, remains largely intact. The enterprise manager still requires an allocation order to purchase materials, and these individual orders, from steel to sewing thread, are intricately related to the output and supply plans of the enterprise, both of which are ratified from above.

It was hoped that the lack of certainty in the timely delivery of supplies, which along with the persistent pressure for growth in output formerly necessitated the enterprise manager to become self-contained, would be eliminated under the reorganization. For one thing it was expected that an enterprise would be assured supplies from other enterprises within the same CNE. This expectation seems to have been more than realized. During the first year of the operation of the CNE's, local hoarding and preference to local buyers were alleged to such an extent that often internal CNE contracts were overfulfilled while external contracts remained underfulfilled. These developments led the center to take measures to enforce the planned distribution of output. A

law enacted in April 1958 threatens financial penalties against enterprise and CNE managers who fail to fulfill contracts to ship to firms external to the CNE. The same law threatens "repeaters" with criminal penalties. Thus, as usual, administrative measures from above--in the absence of objective economic criteria--define for the local authorities what is required of them to assure that their actions are consistent with the wishes of the regime.

As part of the reforms in the organization of industry, new procedures were adopted in planning that assertedly would bring about increased efficiency in the use of resources. The enterprises were to initiate the plan submitting it to the CNE and on upward to USSR Gosplan. This "change," however, is not significant, because enterprises formerly filled in much of the detail and reviewed the general targets "sent down" from the center concerning specific output targets, labor force and wages, cost of production, supplies of materials, and the like. Whether initiated by the enterprise or sent down from the center, drafting and coordinating the plan are always accompanied by hard bargaining on the part of the plant manager, who has much at stake. Other indications give the impression that the old planning processes are still in effect under a more "democratic" name. It is clear that, in the end, USSR Gosplan will make the final choice as to what and how to produce.

Other than these specific decision-making categories in which it can be concluded that there really has been very little meaningful change, it is of interest to look for change under the general rubric of "day-by-day" decisions affecting the operation of the enterprise. Although gains of some significance are undoubtedly possible, there are indications that the decisions of this type which the government seemed anxious to have shifted from the center to the CNE and to the enterprise may not have been shifted. This may be the result of timidity by the CNE or ambivalence on the part of the central authorities in releasing their direct control. On the other hand, certain improvements in the operations of the enterprise may follow from the physical presence of the CNE in the region compared with the former remote direction of the enterprise from Moscow by the main administration of a ministry.

The proximity of the CNE to the plants should reduce the degree of ignorance of the immediate superior in the form of the CNE chairman and give him a better basis for determining what decisions can be made rapidly by the CNE or by the center. Thus the CNE chairman, with different success indicators from the enterprise manager, will attempt to enforce the desires of the center as stipulated in annual plans. For example, fulfillment of the plan for gross output at the expense of quality of product mix, formerly widespread, is likely now to be curtailed, at least for that part of the enterprise's output that remains within a CNE. This is because the CNE chairman has an incentive to see that the product mix according to specific grades and quality is enforced, whereas under the former system the enterprise manager could circumvent the planned assortment and still reach output goals.

In general, it was concluded, from the analysis of changes in decision-making procedures, that the "rules of the game" have not really changed significantly. Thus the spectrum of choice open to levels below the center has not widened enough to give real content when translated into terms of improved efficiency in the use of resources. The one possible exception, as noted above, may be some improvement in carrying out the explicit goals of the central authorities on account of the immediate presence of the CNE chairman in directing the enterprises in his region.

In summary form, the following can be stated as general conclusions of the study on the industrial reorganization:

1. Centralized planning and control remain, as before, the guiding principles of the Soviet economy. No serious erosion in central leadership and control has resulted as yet from the reforms in industrial organization. To forestall any serious erosion, a number of measures have been taken to close chinks whenever peripheral organs have, legally or illegally, made economic decisions that were not consistent with the wishes of the central organs.

2. There has not yet been a significant devolution in economic decision-making sufficient to yield noticeable gains in efficiency in the use of resources. It is believed, however, that a prime motivation of the reorganization was a desire on the part of Khrushchev and the leadership to effect a significant enhancement of efficiency by promoting economic growth through such devolution of decision-making as was deemed consistent with continued central control.

3. It is likely from the above (1 and 2) that the present system is in an interim stage and that further organizational developments will be forthcoming. These changes on the one hand could be a return to a clearly defined central control in which all semblance of "decentralization" is removed and the rules are made so precise that the center has effectively eliminated any choice open to lower levels (republic, CNE, or enterprise). On the other hand, the leadership could attempt to give real content to its original conception of "democratic centralism" -- that is, delegating meaningful decision-making powers to local levels within a framework of broad objectives determined by the center. Khrushchev's recent discussion of the possibility of giving the CNE's authority to allocate their total investment funds among industries, subject to the achievement of output goals for key commodities, indicates that he still leans in this direction. Effective implementation of decentralized decision-making, however, requires the substitution of market prices and profits as objective criteria of efficiency for physical output goals and administrative allocations of supplies. There is no indication, nor is it believed to be likely, that the Soviet leadership will move toward a system of market socialism as now practiced in Yugoslavia. Although it is impossible to say definitely what direction the change will take, it is believed that eventually (perhaps after more experimentation toward "decentralization") there will be, at least de facto, a further tightening up in an effort to eliminate localist tendencies.

4. The impact of the reorganization on industrial growth has not been significant to date nor is it expected to have important influence over the next several years, at least not under the present reforms.

5. USSR Gosplan emerges from the reorganization as the single most important economic organ, its powers being enhanced not only in long-term planning but also in operational decision-making.

6. The role of the Communist Party also has been strengthened, especially at the oblast level. Under the new system of economic administration in which the regional Party official is urged to play a more prominent role, an element in Soviet society gains increasing influence--the regional Party secretary. In this situation, two possibilities arise. First, the regional Party secretary may closely identify his interests with those of the regional economic officials (in terms of plan fulfillment, adequacy of supplies, and the like). Second, the regional Party secretary who is found to be in collusion with the economic administrators whom he is supposed to watch may be quickly purged for not maintaining an "objective" Party point of view. Which development will arise, of course, will depend on a number of variables such as the individual personalities of the regional Party secretaries and on the ability of the Presidium of the Central Committee to maintain a close rein on the regional officials. In any case, the regional Party secretary may gain considerable economic power.

I. Introduction.

A. General.

Centralized planning and control of the Soviet economy induced the evolution of a ramified and cumbersome bureaucratic administrative apparatus.* Before mid-1957 this structure was typified by large and powerful industrial ministries in Moscow which supervised and often directly intervened in management details of individual enterprises situated throughout the country.

Such a system had certain advantages. In an economy undergoing rapid growth, sectors of the economy given priority by the regime were assured raw materials, personnel, or funds by the operations of the ministry in Moscow, the head of which sat on the USSR Council of Ministers.

Such a system had its drawbacks, however, and with the passage of time these became sufficiently obvious to call for some type of reform. Khrushchev himself promoted the ostensibly sharp break with the previous arrangement, establishing regional councils of national economy (sovnarkhozy, or CNE's) along existing territorial-administrative boundaries. These sovnarkhozy were assigned operational responsibility for the majority of industrial ministries, both at the union and at the republic level, for the most part were abolished. Thus the previously existing pattern of direct nationwide administration according to specialized industry was replaced by a territorial pattern of subordination with some simplification of detail in decision-making at the center.

The principle of "a single state plan" as the basis for Soviet economic management was not, however, repudiated. Although industrial and administrative authorities outside of Moscow were intended to play a larger role in solving the day-to-day problems arising in the operations of plants and factories, the central regime continued to reserve to itself decisions involving the definition of economic goals and appropriate policies for their attainment.

Of all the official reasons given for the reorganization and the generous supply of case studies provided in illustrating the defects of the previous organization, there appear to have been three underlying threads of complaint: (1) there was inadequate information available to provide to central planners and decision-makers an adequate basis from which they could make a more rational

* Not only the fact that there is centralized planning but also the extent of detail embodied in operating the modern and complex Soviet economy has engendered an ever-increasing apparatus.

choice* in the allocation and use of resources; (2) when the relevant data were available to the various ministries and to USSR Gosplan, "wrong" decisions were made because of the parochial interests of individual ministries who participated in the final choice; and (3) when complete information was available to the central organs and when there were no "departmental" barriers at the top, "wrong" decisions were made because of the lack of "objective criteria" in deciding what was the most efficient use of resources. The first two complaints were made explicit, both in descriptions of the inadequacy of the former organization and of the expected performance of the new organization. The third complaint was only implicitly present in Khrushchev's original proposal and in the "public" discussions that followed; it remains, at present, a minor topic of discussion relegated to the learned journals.

The above classification of the problems underlying reorganization gives more content to the catch phrases condemning the ministerial system for organizing industrial production by "commodity" (departmental barriers; overcentralization; need to move the center of gravity of decision-making closer to the enterprise; need for more realistic, less isolated planning; and the like).

The analysis that follows discusses four aspects of the reorganization: (1) motivations for the reorganization, (2) structural changes, (3) economic effects of the reorganization on specific classes of resource misallocation, and (4) economic effects from the changes in decision-making procedures.

B. Motivations for the Reorganization.

It is difficult to unravel the various motivations for the industrial reorganization. Some Western students feel that a political struggle for power was the over-riding "cause."** Others contend that economic problems were the major basis for the changes.***

* The term rationality is defined not with the usual textbook constraints introduced to achieve "optima," but under a less rigid definition. Nove seems to have a definition that has the dual virtue of simplicity and relevance for a nonmarket economy such as that of the USSR. He contends that rationality occurs when "the economic purposes of society, whatever these may be and whoever decides them, are achieved with maximum economic efficiency. Or, alternatively, that maximum results are achieved at minimum real cost."

** For example, Myron Rush and Edward Crankshaw.

*** Such as Alec Nove.

Yet there was, clearly, no single cause for the reorganization. It occurred rather as an outgrowth of a complex pattern of motivations. On balance, the decision to reorganize and the nature of the principal changes themselves appear to have been based largely on economic grounds. The timing of the reorganization and some of the measures finally detailed seem to have been politically influenced. Strategic implications most certainly were also considered.

1. Economic.

Khrushchev's scheme for reorganizing the administration of industry and construction, both in its overt content and explicit justification, was exclusively economic. It purported to reorganize only economic organizations and economic relationships. And the explicit rationale accompanying Khrushchev's proposal was grounded entirely on economic considerations.

The scheme was launched in the wake of the December 1956 Central Committee Plenum and the February 1957 Supreme Soviet, both of which dealt with emergent economic problems in a manner deemed by Khrushchev and others to jeopardize the prospects for continued rapid economic growth and to threaten abandonment of the goal of "catching up with the West" in per capita output.

Yet despite this intended and obvious, predominantly economic, content and rationale, Khrushchev's panacea-like scheme for drastically altering the Soviet economic-administrative structure had important political and strategic implications.

2. Political.

Khrushchev, whose political authority and prestige were already weakened by events in Eastern Europe, apparently was unable at the December Plenum to counter moves to revise the Sixth Five Year Plan along lines proposed by the industrial administrators--that is, reduction of high growth tempos and development of a more economically viable pattern of investment allocations. At that moment it appeared that Malenkov, who apparently had long considered retrenchment and correction of disproportions in the economy a vital necessity, was making a political comeback. Soon after the February 1957 Supreme Soviet had adopted the 1957 annual plan with its sharply reduced planned rate of growth--a plan developed by Pervukhin and his team of top-level administrators ostensibly in accordance with the December Plenum's directives--Khrushchev reacted by proposing a radical reorganization of industrial administration to the Party Central Committee, called into session the day after the Supreme Soviet concluded its work. The reorganization may well have been sponsored by Khrushchev in an effort to gain the political initiative in economic policy-making and as an answer to Soviet economic problems which, while recognizing some of the demands of the industrial-managerial bureaucracy, would break up the ministerial empires of the industrial managerial elite and bring vital spheres of economic and industrial activity more closely under Party supervision.

Some confirmation for this hypothesis can be seen. Virtually no public support was given the reorganization proposal either by Malenkov himself or by many of those high-level administrative and technical personnel in the ministries who would be most adversely affected by the reorganization. Purportedly, Malenkov, with Molotov, Kaganovich, and Shepilov, crystallized into the "anti-Party group" in a last-ditch attempt to frustrate the reorganization program. One consequence of the reorganization itself was expected to be a significant increase in the role of local Party organs in the operation of the local economy in concert with the sovnarkhozy.

None of these factors, however, seems to bear directly on the decision to reorganize per se. They involve reactions of affected parties to the implementation of such a decision. It is reasonable to assume that Malenkov and those officials of the governmental-administrative apparatus who felt that their status was inextricably tied up with the fate of that apparatus would find much that was disagreeable in the reorganization plan, which might be deemed to reduce the role of the bureaucracy in favor of the Party. The validity of the analysis above as to the conflict between the bureaucracy and the Party has never been clearly established.

It seems evident that political interplay was involved in the decision to revamp industrial management. The political motivations for the decision, however, arose out of disagreement over the causes and solutions of admittedly serious economic difficulties. Economic considerations and the desire for economic improvement, therefore, were basic to the decision to regionalize.

3. Strategic.

The plan to regionalize the Soviet economy carried with it certain strategic implications. There is little reason to doubt that the Soviet leadership expected strategic gains as a result of the reorganization.

Khrushchev, for example, in discussing the reorganization, stated that "the reorganization of industry that we have carried out insures a more autonomous management of industry, which also is a 'plus' strategically." Strategic factors of this sort, however, cannot be considered as a primary motivation for the new system. Khrushchev himself specifically said that the strategic consideration "is a collateral, but a very important (reason.)" There seems little reason to suspect that this statement represents any kind of subterfuge on the part of the Party leader.

In this regard it is significant that individual economic administrative regions do not coincide with borders of military districts. Thus, as of 11 July 1958, there were 104 economic regions but far fewer military districts. There is no indication that military districts are being reorganized to include within themselves a group of self-sufficient and largely integrated

economic regions readily adaptable to dispersed martial rule.

Shortly after the reorganization the Ministries of Radio-technical Industry, Shipbuilding, the Defense Industry (armament), and the Aviation Industry were abolished, and state committees were established to take their place. Production enterprises of these former ministries evidently are subordinate to appropriate regional economic councils. Such a move does not suggest immediate primacy of "crash" strategic considerations.

II. Structural Changes in Soviet Industry.

The reorganization carried out in July 1957 was not the first attempt in the post-Stalin period to improve the structure and functioning of the economic system. In fact, the recent change embodies a drastic response to many of the same ills implied by the pattern of earlier, less sweeping organizational and procedural changes.

A. Changes Since 1952.

Since late in 1952, and particularly since Stalin's death, Soviet leaders have experimented with reducing administrative staffs, simplifying national plans and planning procedures, reorganizing some central or All-Union ministries into union-republic governments greater responsibility for directing industry within their territorial boundaries. Although some changes accompanied political developments (such as the drastic merger of central ministries immediately following Stalin's death), most changes since 1952 have been motivated by economic-administrative considerations.

As part of the program to simplify economic administration, the national economic plan -- formulated by USSR Gosplan and the USSR Council of Ministers -- was reduced in detail. More and more computation of detailed targets was assigned to ministries and their main administrations, so that the 1955 plan contained approximately one-third the number of specific targets that were listed in the 1953 plan -- a reduction from 5,000 to 1,700 items. The national economic plan thus came to emphasize aggregate rather than detailed categories. The central planning organ -- USSR Gosplan -- was required to allocate commodities only to ministries and not to the main administrations as it had in the past. The ministers were delegated authority to distribute the allocated commodities among their own subdivisions.

From 1952 to mid-1957, 12 central ministries were reorganized from All-Union to union-republic, with counterpart ministries set up in appropriate republics. One result of these developments was to strengthen the relative role of the union republics

in directing the economy.* By mid-1956, approximately 40,000 enterprises had already been transferred from direct subordination under the All-Union apparatus to that of the republics.

The transformation of ministries and subsequent transfers of enterprises are reflected somewhat in the accompanying table, which shows the percentage of the volume of state industrial production attributable to enterprises under union subordination**:

Table

Production of Industry in the USSR, by Subordination of Enterprises
1950-55 and 1957

Subordination	Percent of Total Production						
	1950	1951	1952	1953	1954	1955	1957
All-Union	67	68	70	69	57	53	45
Republic, oblast, and rayon	33	32	30	31	43	47	55

The reorganization of July 1957 redefined the categories of subordination so that for the year 1958 relatively few enterprises would remain under All-Union subordination.

In summary, the reorganizations in this period attempted to correct the bureaucratic excesses of overcentralization by attempting to assign more authority and responsibility to the All-Union ministries and to republic governments. Although these piecemeal steps failed to forestall the growing economic problems, the experiments in limited reorganization of the economic-administrative structure after 1952 foreshadowed the sweeping changes carried out in July 1957.

* It must be remembered that, while the powers of union ministers may have been strengthened during 1952-57, there was no significant devolution of decision-making or control powers from the center to the republic, local government, or enterprise levels. Whether it involved production, supply, or investment, in any conflict of view between central and republic ministries (or lower echelons) it is a reasonably safe presumption that the views of the center prevailed.

** For enterprises under republic subordination, of course, there is merely an added administrative layer between the enterprise and the center.

B. Meetings of the Party and the Supreme Soviet in Late 1956 and Early 1957.

Against this background the Central Committee of the Communist Party of the USSR (CPSU) met in plenary session on 20-24 December 1956. At this session, some industrial ministers criticized the State Economic Commission for Current Planning (Gosekonomkomissiya) because it allegedly made serious errors in underestimating the investment needs of certain industrial activities. Failure to provide added capacities, these ministers contended, would make plan fulfillment impossible in certain sectors. The criticisms of the ministers were answered by Bulganin, who accused them of making extravagant requests--particularly the requests by the primary industries of building materials (Kaganovich), metallurgy (Tevosyan), and electric power (Malenkov).^{*} In his speech, Bulganin also mentioned the need to expand the roles of union republics, ministries, local governments, and enterprises in economic management.

The Party Plenum was a high point in political influence reached by the industrial-managerial bureaucracy. They succeeded in getting a favorable decision on their demands for lower planned rates of industrial growth and for an economically more rational pattern of investment allocations. Gosekonomkomissiya was strengthened, both by being entrusted with the "function of the operative solution of current questions" and by having its staff overhauled and invigorated. M. Z. Saburov was replaced by M. G. Pervukhin as chairman, and six top experts in industrial and agricultural management were made his lieutenants--a move apparently designed to improve sharply top-level coordination of the economy. The State Commission for Long-Range Planning (Gosplan), headed by N. K. Baibakov, was left untouched.

The implied slowdown in planned rates of industrial growth, suggested by the Central Committee communique of 24 December, was confirmed during the session of the USSR Supreme Soviet which met on 5-12 February 1957. Plan and budget speeches delivered at that time criticizing "excessive strains" in the economy made it evident that Soviet leaders were aware of problems related to fulfillment of the original 1960 goals of the Sixth Five Year Plan.

Hardly had these decisions been made when the Central Committee once again met in plenary session (13-14 February 1957) and took the first dramatic steps toward industrial reorganization. On the basis of a report delivered by Khrushchev, the Central Committee adopted a decision "to instruct the Presidium of the CPSU Central Committee and the USSR Council of Ministers to draft concrete proposals for the reorganization of management in industry and construction (in a manner) which will combine...

* For accounts of the proceedings of the Plenum, see I. A. Kulev (Deputy Chairman of Gosekonomkomissiya), On the Further Improvement of Planning and Leadership of the National Economy, and V. Karasev (candidate member of the Central Committee), The Story of the December and February Plenums of the Central Committee, CPSU.

more concrete and efficient management in economic areas and strict observance of the principle of centralized planning on a national scale."

Although precise terms of the new system were not spelled out, it appeared that the recently refurbished Gosekonomkomissiya was to be abandoned in favor of a strengthened Gosplan. In a subsequent interview with a U.S. correspondent, Khrushchev indicated that abolition of industrial ministries at both All-Union and republic levels was contemplated.

C. The "Theses" and the May Session of the Supreme Soviet.

The picture was considerably clarified with the publication on 30 March of the "Theses" on the reorganization, submitted by Khrushchev on behalf of the Party Presidium and the USSR Council of Ministers for countrywide "popular" discussion before submission to the USSR Supreme Soviet for approval. This document outlined the concept of regional councils of national economy, to which would be subordinated the great majority of industrial enterprises and construction sites located within their territorial limits. Those enterprises not subordinate to the sovnarkhozy would be administered by local soviets. Industrial ministries formerly charged with these tasks would be abolished. The role of USSR Gosplan would be significantly enhanced so as to include "definite powers for direct solution of questions relating to coordinating the work of the economic councils in the fulfillment of national economic plans." The revamped Gosekonomkomissiya, whose status had become uncertain following the February Party plenum, was to be dissolved.

The publication of the "Theses" was the signal for an intensive discussion, carried in the pages of the Soviet press, devoted largely to approving the entire scheme in principle while offering various suggestions on some of the details which the "Theses" failed to specify. As finally adopted on 10 May by the Supreme Soviet, with further details added at subsequent republic sessions, the plan was not markedly different from that foreseen in the original proposals. Certain exceptions, however, shed light on some of the considerations involved in the reorganization as well as on areas of disagreement among various persons or groups involved.

D. Reorganization of July 1957.

The economic-administrative structure of the Soviet government was altered in July 1957 by changing the makeup of the USSR Council of Ministers by concentrating both long-term and current planning in one organization (USSR Gosplan); by changing the functions of or abolishing most central ministries; and, finally, establishing regional councils of national economy to which were subordinated the majority of industrial and construction enterprises throughout the country.

1. USSR Council of Ministers.

Although the numerical membership of the USSR Council of Ministers is relatively unchanged (65 in January 1957 versus 61 in April 1958), its composition, of course, is somewhat different. Replacing some ministers on the Council whose ministries were abolished are several USSR Gosplan officials (7, in addition to the chairman of USSR Gosplan), as well as the 15 chairmen of the union-republic governments. Finally, the chairman of the Central Statistical Directorate was given the title of minister with a seat on the Council.

2. Ministries.

Since 1 May 1957, 33 out of 52 central ministries have been abolished (6 of the former ministries were re-formed into state committees. In addition, 4 other central ministries were consolidated into 2 ministries. Administration of most industrial enterprises is now regionally organized under the local sovnarkhozy.*

Certain construction and industrial ministries were excepted from the general pattern of relinquishing operational control over their enterprises. These are the Ministries of Transport Machine Building and of Medium Machine Building (nuclear energy).

Two examples illustrate the functions retained by economic ministries still in existence. In electric power, sovnarkhozy administer power stations, and the Ministry of Electric Power Stations controls the over-all distribution of electric power. In the chemical industry the Ministry** was to confine itself to current and long-term planning, to the introduction of new technology and new products, to guiding research laboratories, and to studying plant location and choice of new projects -- but was not to manage enterprises.

3. Planning Apparatus.

The central planning apparatus was changed to merge long-term and short-term planning in one organization -- USSR Gosplan. Gosplan was abolished. USSR Gosplan was enlarged in function and in staff. Among USSR Gosplan's deputy chairmen and department heads who now have seats on the USSR Council of Ministers, seven formerly headed union ministries. USSR Gosplan is responsible for overseeing the development of important branches of the economy and for insuring adequate supplies of goods for industrial production.

* One Soviet author states that all industrial enterprises will be managed by sovnarkhozy. This seems to be an exaggeration.

** This ministry was replaced recently by a State Committee for Chemistry.

Consolidation of all central planning and approximately 16 main administrations for sales and supply, as well as scientific-research institutes formerly belonging to central ministries in USSR Gosplan, greatly enlarges the role of this organization in directing the economic activities of republics, ministries, sovnarkhozy, and factories.

The Gosplans of republics, similar to USSR Gosplan, were increased in responsibility, functions, and staff. In the Ukraine, for example, seven department heads of that republic's Gosplan sit on the Ukrainian Council of Ministers.*

4. Economic Regions.

The principal effect of the reorganization, organizationally, was to create 105 (now 104) economic-administrative regions, each with its council of national economy.** The councils administer the major portion*** of industry and construction in their regions, the boundaries of which tend to follow existing oblast and republic boundaries. Each council has a chairman, deputy chairman, and several members.**** Staff employees of the councils, however, vary in number from several hundred to as many as 3,000.

The detailed structure of the sovnarkhozy varies somewhat among the regions, but each has a governing body ("council") and an advisory "technical-economic council" as well as administrative and functional subdivisions. The Armenian sovnarkhoz, for example, has 6 administrative branches (such as finance), 6 main divisions (such as transport), and 11 industrial branches (such as light industry, fish industry, and chemical industry). And in Voronezh the advisory technical-economic council, for example, is composed of 125 members, divided into 15 branch sections.

* In the RSFSR, however, Gosplan department heads no longer sit on the republic council of ministers.

** The full title is Council of National Economy (Sovet Narodnogo Khozyaystva).

*** It has been estimated that the councils administer just under 75 per-cent of gross industrial output, local government agencies administer 15 percent, and central ministries and committees administer approximately 10 percent.

**** For example, the Moscow City Council has 15 members, Sverdlovsk has 13, and Kemerovo has 12.

E. Party Control Under the New System.

A striking aspect of the reorganization is the implication it has had for strengthening the role of the Party in Soviet economic affairs. From the very outset of the program the press has stressed that the Party is to play a key part in virtually every phase of CNE operations. The Party committees have been active in the appointment of CNE personnel,* and undoubtedly leading positions within the sovnarkhoz apparatus are nomenklaturyi -- that is, on that list of jobs for which the candidate is selected and approved by the Party. Besides rendering assistance to the CNE's in their functioning, Party organizations within the CNE (elected within each subsection), for the CNE in its entirety, and at all levels of the standard Party structure, are constantly reminded by the regime to fight any tendencies toward "localism" -- the putting of local above state interests.

Whether the Party and its members may usefully be distinguished as a group opposed to or in contrast with the CNE personnel, economic administrators, or governmental bureaucrats, remains questionable; it is probably a distinction which is all too often overdrawn. The prestige and standing of all local officials, whether Party secretaries, CNE personnel, or local government officials, will in great measure depend on the operational efficiency of the sovnarkhoz in the region in which they are located. This common concern may well tend to encourage these people to operate harmoniously. To be sure, friction is bound to occur, of which numerous instances have been noted in the press. On occasion, CNE officials have complained of what they felt to be undue Party interference in their affairs, and local governmental (oblispolkom or krayispolkom) leaders have on occasion found fault with the tendency of the newly established CNE to ignore the views and desires of the previously existing governmental organs. This problem in particular has been compounded by the lack of clarity in defining the relations expected to obtain between the CNE and the existing government organs in the corresponding area.

It should be stressed, however, that in the past strains have existed between Party officials and economic administrators. Under the new system similar problems may well persist. Nevertheless, in the past the various officials have shown a remarkable aptitude for compromise. Such an ability to accommodate does not necessarily disappear in the face of a bureaucratic and administrative organization.

* In appointments, however, the Party has exercised restraint, with no tendency evident to sacrifice technically competent personnel in order to load the CNE apparatus with Party "hacks."

III. Manifestations of Resource Waste.

A. Problems and Their Organizational Remedies.

As was suggested above, the leadership has been aware of certain organizational deficiencies and the ways in which these deficiencies manifested themselves. Numerous efforts had been made to correct these organizational defects since Stalin's death by way of campaigns* and through limited organization changes.

To understand better the problems confronting the regime, it may be useful to classify some cases, reported at length by official sources, into seven major categories. The seven particular defects that follow do not exhaust all the types of resource misuse that were officially claimed to exist under the old system. The list, however, does cover the major categories, as follows: (1) waste in the use of joint products; (2) desire of self-sufficiency and the failure to subcontract; (3) waste through unnecessary and inefficient transportation; (4) hoarding of "surplus" inventory; (5) organizational duplication resulting in the waste of human resources; (6) joint resources--the case for amalgamation and joint use of ancillary activity; and (7) investment planning and plan implementation.

Official evidence of "irrationality" for the various categories, the corrective measures that have been taken under the new form of organization, and the economic gains or losses resulting from these measures being applied to these specific cases will be examined below.

1. Waste in the Use of Joint Products.

Several examples have been reported of waste in resources resulting from the failure to process fully compound ores or to use by-products because of separate organizations controlling the production of related commodities.

At one ore-processing plant, only zinc, lead, and copper were extracted, and seven other elements, including sulfur and tin, were discarded as waste because they were the responsibility of a different ministry. At the Besokogorsk deposits, only iron was processed from the ore; thus waste amounted to 70 percent of useful ore (by value) in the form of unextracted cobalt, silver, phosphorus, and the like.

The Lisichansk Chemical Combine had formerly discarded carbon dioxide as a waste product while a neighboring soda plant was obliged to produce its own. In Rustavi the same type of "departmental barrier" precluded the use of coke gas produced by the metallurgical plant for the manufacture of nitrogen fertilizer in a nearby plant of another ministry.

* The term campaign refers to an organized effort to push ahead some state program when considerable resistance to the program is expected. It generally has a specific aim that the state feels can be achieved best by means of a well-publicized drive.

The output gains in certain of these cases were so evident that immediate investments were forthcoming to make use of the wasted materials. In the case of the Lisichansk Chemical Combine, the wasted 20,000 cubic meters of carbon dioxide is now piped to the soda plant next door. In the compound ore cases cited above the likelihood of gains is less clear. Many elements normally appear together, and the fact that one or more elements are being extracted and other are not does not of itself prove that a "free resource" is being thrown out in the mine tailings. Costs are involved in extracting the other elements, and whether the returns are greater from this source than from increasing output of the same element (or a substitute) from another source depends, among other things, on the concentration of the element and the mineral form in which it occurs.

2. Self-Sufficiency and the Failure to Subcontract.

Probably the most frequent example cited of "irrational" use of resources was the "high cost" production often undertaken by the enterprise to assure itself of its own supplies of component parts even when these parts were in wide use by many plants in the same locality. This practice resulted in small, relatively high-cost subsidiary operations attached to the plant, while nearby, with unused capacity, specialized plants of other organizations might be producing the same product at lower cost.* The most frequent examples involved castings, forgings, stampings, welding electrodes, tools, instruments, and plastics.

This desire for self-sufficiency on the part of industrial administrators was a natural reaction to the constant worry and concern about other plants failing to fulfill subcontracts. Under such uncertainty about time fulfillment of supply contracts, they could either rely on their own supplies or run the risk of supply shortages and thus fail to achieve the primary goal--output.

Examples were numerous of average cost differentials of two, three, and four times. Such differentials might be explained by economies of scale and technological considerations, especially cases of indivisibilities due to the impossibility of adapting mechanization to small ancillary shops producing castings, tools, instruments, and the like. In the machine building industries, for example, more than 30 percent of the foundries were characterized as "inefficiently and poorly equipped" with annual output capacities of less than 1,000 tons of castings.**

* The phenomenon of large differentials among enterprises in the average cost of production of any given commodity is characteristic of Soviet industry. The publicized criticism here is directed toward those commodities that are in common use by industry and where possibilities exist for shifting production from one enterprise to another.

** No optimum size castings shop is given, but of the exemplary shops mentioned the capacities are in the 10,000- to 15,000-ton range.

Specific examples of cost differentials existing between these auxiliary shops and nearby "specialized" plants can be cited.* The Voronezh Agricultural Machinery Plant produced its own hardware articles (nuts, bolts, nails, and screws) at a cost of 3,000 rubles** a tone while nearby plants could supply these items at 1,000 rubles a ton (presumably the same product mix). In the Sverdlovsk CNE it was found that small auxiliary shops were producing instruments at four and five times the price charged by the specialized instrument plants. In the Saratov CNE the cost of producing electric motors in one plant was twice that at another plant which was found to have adequate capacity to supply both plants.

To curb this waste of resources, the new CNE's were authorized to shift such production from the "high cost" to the "low cost" plants. With this criterion in mind, the CNE's have duly surveyed their internal plants producing standard metal goods, and, where adequate capacity has existed, they have closed the high-cost producers. For example, the Leningrad CNE closed all but 14 of 84 foundry shops producing gray iron castings for the local machine building industries and all but 30 of 76 forgings and stampings shops. Besides these fairly standard components (castings, stampings, and the like), surveys are being made of other components, such as pumps, cold-formed sections, reduction gears, and spare parts.***

* In some cases the "efficient" plant truly specializes in these products or, as in most cases, has a larger shop (for example, foundry) that is supplied with more machinery, makes use of input-saving technology, and presumably has a current output below its "capacity." The smaller, inefficient plants usually use "semihandicraft" means.

** Unless otherwise indicated, ruble values in this report are based on the official rate of exchange, 4 rubles to U.S. \$1 which is not necessarily an accurate reflection of the dollar value.

*** Although undoubtedly savings are possible from moving production from "high-cost" to "low-cost" producers, it must be remembered that there are certain "dampening effects" that probably will mean that realized savings will be less than predicted savings. These effects include: (a) the possibility of rising (unpredicted) marginal cost in the "low-cost" plant which will mean the average cost spread will be less after the transfer of production and (b) the fact that the "true cost" of capital is not reflected in the computed cost (because of unrealistically low depreciation rates and no interest charges). Thus the "low-cost" producer, described as highly mechanized, will be producing each unit of product X with more units of capital and less units of labor than the "high-cost" producer. Therefore, if cost were "correctly" measured, the cost differential between the two plants probably would be less than presupposed.

3. Transportation (Cross Hauling, Single Hauls, and Pooling).

The cases of "self-sufficiency" cited above also provided most of the cases for the critics of waste from unnecessary transportation.

The "departmental approach," as Khrushchev put it, resulted in Leningrad shipping to other parts of the country almost one-third of its production of pig iron and steel, or 110,000 tons, while at the same time the city received up to 40,000 tons of large iron and steel castings from other parts of the country. With this opening volley in the "Theses," there followed numerous press examples of "irrational transport" covering such diverse commodities as roofing iron, peat, coal, and wire and nails.

Within the category of cross hauling, the case of the iron and steel castings received the most attention and probably was the most flagrant example. The extent of such cross hauling is suggested by the following data on deliveries of iron castings produced by enterprises of one ministry to enterprises of the same ministry in 1957 as a percentage of the ministry's total shipments: Ministries of the Electrotechnical Industry and of Construction and Road Machine Building, 96 percent; Railroads, 90 percent; Petroleum, 88 percent; Shipbuilding, 84 percent; and Instruments and Automation, 74 percent. In the Ministry of Heavy Machine Building, which is supposed to be a major supplier of other ministries, the share was 60 to 65 percent. Or, viewed from another point of view, of total iron castings shipped by all firms, the portion intended for enterprises within the producer's CNE was 4.2 percent for the Gor'kiy CNE, 9.5 percent for Moscow Oblast CNE, 11.8 percent for Chaklov, 13.4 percent for Dnepropetrovsk, 19.0 percent for Belorussia, and 21.5 percent for Altay.

Although considerations of efficiency would not necessarily indicate that the figures should be reversed, the data above suggest a strong propensity for the abolished ministries to practice autarky, even to shipping coals to Newcastle.

The "single haul" case perhaps is an appropriate generalization for those instances of irrational use of transportation services when adequate capacity existed to produce the required commodity in the area where the consumer is located. For example, a construction trust of one ministry located in Karaganda imported bricks from Ust-Kamenogorsk although there was adequate capacity from the Karaganda kilns of a construction trust belonging to a different ministry.*

On low-value, high-weight items such as construction materials, castings, and forgings the increment to the factory price

* The distance from Ust-Kamenogorsk to Karaganda is comparable to the distance from Chicago to New York. In this example the difference in final cost of bricks from the two sources presumably was the transportation charge.

from transportation charges, of course, can become significant. One case was cited of a 200-percent increment in cost per iron casting as a result of shipments from a plant in Kiev to one in Tyumen.

A third type of complaint involved local truck transport. Practically every plant had trucks assigned it, ideally in sufficient capacity to satisfy the plant's peak needs. Large savings allegedly were to be realized once common truck pools could be organized under the CNE--that is, from a reduction in average cost per ton-kilometer.

Under the territorial principle there should be some transportation savings. These savings would come about from all industry reorganizing its interplant delivery system on the criteria of buying and selling locally if possible. Thus it would follow that irrationalities arising from cross hauling and "single hauling" would be eliminated.

If all possible savings from reductions of railroad shipments based on the maxim "sell to and buy from the closest plant" were realized, what would be the reduction in demand for transport expressed by savings in ton-kilometers? An example of the extent of possible savings was estimated for the Ukraine. A Soviet writer computed that "irrational" transport by rail (that is, savings if what he considered to be alternative sources were used) amounted to 6.7 billion ton-kilometers in that republic in 1955. This amounts to about 4.5 percent of the approximately 150 billion ton-kilometers of freight moved that year by rail in the Ukraine. Considering the optimistic assumptions made by the author, the plausible savings may not exceed 2 to 3 percent of the total ton-kilometers.

Some savings are available from pooling the enterprise truck parks under the CNE. Cost per ton-kilometer carried by motor transport will fall as the utilization per truck per year undoubtedly increases.

4. Hoarding of Surplus Inventory.

As Western students of Soviet management practices have indicated, plant managers, main administrations, and ministries have always attempted to put aside stocks as buffer reserves of such items as raw materials, semifabricated parts, and buildings. These reserves were in excess of "legal norms" of inventories and were outside of the officially designated state reserves.

Given the persistent supply problem facing the enterprise manager, these extralegal reserves became an important part of what Berliner calls the manager's "safety factor."

A State Bank investigation in 1940, cited by Berliner, revealed that excess inventories of basic and auxiliary materials above the legal norms ranged from about 7 to 22 percent in the ministries (commissariats) investigated. Another study on metals alone showed excesses of 44 to 600 percent above the allowed norms.

This practice of hoarding was a favorite target in the past of periodic campaigns for "mobilizing reserves." As expected, this topic was in the forefront of the rationale for reorganization. Once the departmental barriers were down, the CNE's were expected to ferret out the "hidden reserves."

At the beginning of 1957 in RSFSR enterprises, there were more than 18,000 uninstalled metal-cutting machine tools (15 percent of 1955 Soviet production), of which more than 10,000 were not needed by the enterprises to which they had been delivered. The Kuybyshev CNE reassigned inventory of 275 motive units and 68 metal-cutting and pressing tools among its plants. The Krasnodar CNE reassigned unused tools and equipment worth 18 million rubles in the first half-year of its operation. The Gor'kiy CNE uncovered excess inventories in the amount of 59.5 million rubles, 30 million rubles of which it transferred to other plants under its jurisdiction.

The Azerbaydzhan CNE found a number of buildings that were unutilized because of former "departmental barriers." One in Mingechaur was turned into a cable factory; others in Baku and Kishlin were found half empty, and metal-cutting lathes were installed in them.

Although the reported redistributions have been mostly within the region, some CNE's are circulating lists of "surplus" materials to other regions for their purchase.

Clearly, such redistributions are gains if they are, in fact, true surpluses, not causing stoppages in those plants from which "excesses" were taken because of unrealistically low official working capital "norms."

5. Organizational Duplication Resulting in the Waste of Human Resources.

Organizational duplication, cited as resulting from the former "departmental system," if eliminated, would reduce manpower requirements in the managerial and "white collar" classes of personnel (procurement and sales workers and planning and general office personnel).

The old ministerial system allegedly led to widespread duplication of supply organs at all levels, from the All-Union ministry and its main administrations in Moscow through the republic level and down to the enterprise. The USSR Ministry of Construction had 15 supply organizations in Moscow, 9 in Leningrad, and 7 in Minsk. In Gor'kiy Oblast, lumber procurement was handled by 40 ministries and agencies. In Magnitogorsk, there were 17 trade organizations belonging to 7 ministries and 6 main administrations. These and other examples were cited by critics as a proliferation of procurement and sales organizations the consolidation of which, they claimed, would bring about large personnel savings.

Another type of duplication was cited. Many enterprises adjacent to one another, because they complement one another, could better be amalgamated under a single administrative unit

although formerly under separate central organs. A typical example was the case of the Storage Battery Plant and Storage Battery Container Plant at Podol'sk. Although they were neighboring and complementary plants, they had separate ancillary activities and administrative personnel.

The amalgamation of a cement plant and its primary consumer next door, an asbestos plant, was advocated on the grounds of savings in administrative personnel. Conserving scarce managerial resources was also explicitly a factor behind the elimination of the numerous construction organizations found within every industrial region. In general, the enterprise amalgamations that have taken place since 1957 assertedly have resulted in savings of 5 to 15 percent of administrative personnel.

6. Joint Resources -- the Case for Amalgamation and Joint Use of Ancillary Activity.

The firm in large-scale Soviet industry is often characterized by the fact that it has several plants organized along vertical lines (combines) or along horizontal lines (trusts).^{*} Although the multiplant principle is strongly entrenched, there are still, according to the critics, many opportunities for further economic gains from amalgamations of plants. In the past, "departmental barriers" precluded this possibility, it is charged.

Since the CNE's have become organized, there has been a rash of amalgamations, mostly into vertically integrated combines. In Sverdlovsk CNE alone, plants were combined in 9 different industries: a cement plant with 2 consumer plants nearby; the Serov blast furnaces with the local ore mines; the Alapayevsk ore mines with 3 nearby metallurgical works; the copper ore, smelting, and chemical plants in Kirovgrad and in Krasnoural'sk; and the refractory, coke-chemical plant, and iron ore mines into the Nizhniy Tagil Metallurgical Combine.

Gains in amalgamation are difficult to assess because they are usually described in vague terms of "better management" or "coordinated planning." Apart from the question of amalgamating several plants into one firm (that is, under one management), the lack of coordination in the use of ancillary activities such as common sources of electric power, railroad sidings, and water supplies was criticized under the old system. The authorities of Kazakhstan have, for example, over the past 8 years been aware of the need for the unification of power-plants so that more than one enterprise could use the same source of power in Ural'sk and Chimkent.

A gain in efficiency from joining ancillary activities, at least as typified in the case of electric power stations, is open to question. It has been estimated that only 5 or 6 percent of total electric power is being produced by local or small industrial plants where some unification of power facilities is likely to yield savings. Of the remaining 94 or 95

* Thus plants performing successive processing of metals may be integrated into a metallurgical combine, and enterprises performing like functions may be brought together into a mining trust.

percent of electric power output, 82 percent is already in a grid system.* The remaining capacity (12 to 13 percent) is in rural or logging areas or at mine and construction sites or is scattered among small industrial plants, most of which are too widely separated to permit amalgamation. Therefore, only very limited gains are to be expected from this source.

7. Investment Wastes from Planning and Plan Implementation.

Planning decisions in the Soviet economy fall into two broad classes: (a) the planning of current output reflected in specific commodity output targets, the combination of factors in producing the output, and the distribution of intermediate and final products and (b) the planning of investments to provide for sustaining present production through replacement of used up capital and for future growth through providing new capital stock.

While production planning mistakes are implicit in the six categories above, the efficiency of planning the use of investment resources has been under explicit attack. The discussion below of the problems of investment planning and plan implementation is limited to those problems that were to be corrected or mitigated by the reorganization. Critics blamed the "old" organizational scheme for two broad classes of planning and planning implementation shortcomings: (a) failures in selection of investment projects and (b) waste in implementing those projects that were selected. Under each of these general headings there were specific inefficiencies that were to be the targets of the reorganization.

a. Disproportions Within a Sector of Industry.

A perennial problem of the Soviet economy has been the timeliness of completing new plant facilities within a sector (for example, metallurgy) where, because of the nature of the production process, if new capacity in one branch (for example, blast furnace) is to be utilized, new capacity in another branch is required (for example, iron ore). This problem as a constraint on growth has become increasingly evident as the economy's output, in any one branch of heavy industry, has closed previous gaps between output and capacity. As a result, there have been growing complaints of organization "weaknesses" that hampered the allocation of investment resources in the proper "proportions."

More specifically in ferrous metallurgy, "sharp disparity has developed recently" between the increased capacity in the processing segment (blast and open-heart furnaces) and the raw material base (iron ore). Local as well as national disproportions were pointed out. For example, in the Nizhniy Tagil metallurgical complex, various plants (now merged into one combine) produced ore, coke, and metal under different main administrations of the Ministry of Ferrous Metallurgy. Because of

* Maximum flexibility is already achieved through a network.

"departmental barriers" within the Ministry itself, disproportions arose at the Nizhniy Tagil complex from new plant capacity for coke production far exceeding the requirements of the local iron-smelting facilities. Smelting capacity in turn grew faster than local iron ore output. Presumably expansion of the production of Tagil steel was retarded because of local iron ore capacity which in turn could have been expanded more rapidly if investment funds had not been misdirected into expanding coke production capacity (that is, with the same fixed investments more product would have been realized).

Presumably as a result of amalgamations, such as that of Nizhniy Tagil Metallurgical Combine, better investment planning will ensue--someone will notice that more funds should be appropriated for iron ore capacity and less for coke capacity in any given time period.

Offsetting the advantage of having a CNE chairman warn in advance of local disproportions may be the loss of know-how of technically specialized ministries. USSR Gosplan, which had the primary responsibility for investment planning, was aided in intra-industry planning of investment by the specialized ministries with their technical staffs. Abolition of these ministries, responsible for assuring "proportionality" in the development of their industries, may not be compensated for entirely by the mere assignment of members of their staffs to the branch of industry departments of USSR Gosplan.

b. Selection of Specific Projects.

The planners, operating under the ministerial scheme, were accused of ignoring specific investment opportunities where the critic suggested that it was obvious the return was greater than in alternative uses of investment resources. The cases concerning minerals and carbon dioxide cited above are examples of cases in which the critics argued that, because of ignorance of "local conditions" or because of "departmental barriers," the investment funds had been withheld. Another case involved an alternative source of coal for Uzbek SSR. It was contended that, by opening a local mine at Angren, coal would be produced at 23 rubles a ton compared with the delivery price of 43 rubles a ton. The project had not been initiated, because funds had not been allocated.

USSR Gosplan investment planners may now be better informed of "local conditions" as far as alternative uses of investment funds are concerned. Every region, in its effort to improve its relative importance as a producer of goods and services for the national economy and to provide more communal services for its inhabitants, will energetically forward numerous project proposals, good or bad. Out of this welter of proposals, there will undoubtedly be certain worthwhile projects that otherwise would have gone unnoticed.

The gains in this direction may be more than offset by the losses occurring in another direction. Criticism in the press (and recently from Khrushchev) alleges that actual investments deviate from the planned pattern of investments. The CNE's,

it is charged, simply divert funds from centrally planned projects to specific projects of their own, without the permission of higher authority. This is "forbidden," of course, but the persistency of the allegations seems to indicate successful circumvention of the law without the retribution that would eliminate it. Thus the actual pattern of investment resource use therefore will not be that which is planned by the central authorities. The interjection of local preferences (with their different criteria) will, of course, mean that the preferences of central planners are not being translated into actual investments, and as seen from their point of view (which is the relevant point of view for our analysis), there is a waste of investment resources.

A typical case would be that of the Karaganda CNE. With the knowledge of the oblast and city Party committees, the CNE switched investment funds allocated specifically for the coal and metallurgical industries to "local projects." A 25-million-ruble CNE administrative building was constructed with funds originally earmarked for the coal industry. Seven million rubles were diverted for the construction of a circus and drama theater.*

The Tashkent CNE decreased appropriations for coal and ferrous metallurgy construction by 10 million rubles, and the Samarkand CNE decreased appropriations for cotton cleaning plants by 4 million rubles, in order to use these funds for the construction of highways and "cultural" and housing projects.

In assessing the seriousness of this problem, it is useful to quote Izvestiya: "The use of means for purposes other than prescribed is a gross violation of the directives of the Party and government in the field of capital construction. Some sovnarkhozy willfully reduced the volume of capital investments which had been established in the plan for 1958 for the development of the most important branches of industry, and directed considerable means into construction of urban bridges, theaters, electrification of rural areas, and other local ends. This occurred in the economic regions of Ryazan', Lipetsk, Gor'kiy, Karaganda, Dnepropetrovsk, Altay, Kuybyshev, and Krasnoyarsk."

* This does not necessarily mean that the CNE chairman has the interest of the general consumer in mind. There are many press criticisms of CNE's ignoring the production of consumer goods. Such consumer-type investment projects as theaters seem to be primarily motivated by the chairman's own interest.

c. Diffusion of Investments -- Problem of Unfinished Projects.

Before the reorganization, ministries were frequently accused of using available investment resources to start an excessive number of projects instead of using these resources to complete projects already under way. The plan for volume of investments (finished and unfinished) could be fulfilled even though commissioning of new capacity remained unfulfilled. As a result, by the end of 1956 the volume of unfinished construction in the RSFSR (where about 60 percent of Soviet construction occurs) had tripled in comparison with 1951. An important motivation for diffusing investment funds among a great number of new projects was the desire of the ministry to be able to justify future requests for increased investment funds.

Rather than being reduced, the volume of unfinished construction has continued to increase by about 10 billion rubles yearly, before and after the reorganization.*

More specifically, current press criticism indicates that the old ministerial practice of dispersing funds among an excessive number of projects has simply shifted to the republic Gosplans.** The prolonged construction periods for petroleum refineries continue, it is alleged, because RSFSR Gosplan officials (formerly in the USSR Ministry of the Petroleum Industry) are starting an excessively large number of projects with a view to justifying future requests for increased investment funds in the future.

Far from limiting dispersions, the CNE's are accused of the same practice cited above. The Lipetsk CNE was accused of dispersing investments among too many ferrous metallurgy projects as well as within other branches of industry. The creation of regional economic administrations need not in itself reduce the scope of the dispersion problems. The investment interests of the individual CNE are analogous to those of the individual ministry -- to maximize the number of projects underway as well as the capital work completed. But their interest

* The ratio of unfinished construction to annual state capital investments, however, has been falling over the past several years: 107 percent of 1955 capital investments at the beginning of 1956, 98 percent of the volume of 1956 investments at the beginning of 1957, and 92 percent of 1957 investments at the beginning of 1958. This slowing down of the rate of unfinished construction compared with the increase in the rate of total investment was a result of measures taken before the reorganization.

** These critics attempt to pin the blame on ex-ministerial officials who have been transferred to Gosplans and have continued the same practices of planning and project implementation that they used in the ministries.

in maximizing the work under way tends to induce starting many more projects than may be economically justified.*

Control of such interests and tendencies must be accomplished by means other than the reorganization of construction as carried out during 1957. Evaluation of performance in construction continues to be based on fulfillment of the plan for the volume of capital work without discerning between the volume of work on unfinished or finished projects. Thus neither financial support nor bonuses to construction organizations are dependent upon completing construction projects and putting them into operation (except for projects scheduled to take less than a year).

d. Waste of Resources in Investment Implementation.

Wastes in implementation range from gross errors of negligence because of "departmental barriers" to questions of the optimum size of construction firms. One costly error was the case of a rail line constructed through a portion of the Angara River valley which was already scheduled to be inundated by the Bratsk Hydroelectric Station dam. This allegedly was the consequence of a failure to coordinate two separate investment decisions made by Moscow ministries. Another waste arose from the widespread proliferation of construction firms at the local level because construction and installation work was carried out by each ministry separately. As a consequence, the annual volume of work of most firms was smaller than an "optimum" annual volume.

This profusion of local construction firms introduced added rigidities in the distribution of construction materials and labor, with temporary shortages of materials and other factors of production causing frequent shutdowns at local building sites. Many of these shutdowns could have been prevented, presumably, if a single local organ had possessed authority to maneuver available materials and labor among the construction firms in a given area.

Certainly some gains will be forthcoming from the reorganization. Obvious errors such as occurred in the Bratsk case will tend to be precluded, as the regional councils undoubtedly will be aware of the projects under way or planned for their territory. But this type of mistake, although sensational in character, probably was a minor element in the inefficient use of investment resources.

Efficiency gains of some importance may come from consolidating small construction firms in the same area and from integrating firms producing construction materials with the construction firms themselves. These gains probably will result

* This discussion is in the context of investment diffusion--given a fixed sector pattern of investment. The question here is investment within the oil industry and not whether the CNE will invest a given amount in a theater or an oil refinery. The choice of the theater project may be more in their interest, but for present purposes this choice is precluded.

from three types of change. (1) Increasing the average size of a firm may reduce the cost per unit of construction accomplished. Soviet sources claim that the optimum size of a construction trust is 150 million to 300 million rubles (value of construction per year) for industrial construction and 100 million rubles per year for housing-civic construction. Before the reorganization, only 16 percent of construction organizations in the RSFSR attained such volume of output. Presumably, most of the other firms had a smaller volume of construction, and therefore savings are possible by consolidations.* (2) Pooling of common resources (labor, materials) will allow for "maneuvering" of inventories and manpower within a region so that there will be fewer work stoppages because of temporary distribution failures. (3) The vertical integration of building material firms (local brick kilns, sawmills, and the like) with the construction firms may prove beneficial.

B. Summary of the Effects of Reorganization on the Seven Special Cases of Resource Waste.

In evaluating the effects of the reorganization on the specific defects discussed above, it is useful to separate the transitional from the longer run effects. The analysis of transitional effects would embrace the time period required to exhaust the windfall gains (stock of opportunities for gains or losses) from the effects of the reorganization "cures" on the seven items. Thus, assuming that normal growth would not take place in this period, the interesting question to ask is, How much more goods and services would the Soviet economy produce after the reorganization has had time to work out all its positive and negative effects on the present base of resources?*

* Obviously there are good reasons why some trusts cannot be organized into the "optimum" size: (1) volume of construction varies by region and (2) specialized firms by the nature of their work (dams, blast furnaces) cannot readily be amalgamated with general construction firms.

** In a more rigorous sense the following are being held constant in the "short-run" or transitional period: (1) all conventional resources of production (quality and quantity of labor, capital stock) and other effects (new technology) -- it is assumed that any additional resources required to "reorganize" would be released from alternative uses (that is, capital from depreciation allowances); and (2) the "bad effects" of the reorganization are ignored that are not considered in the discussion of the classes of "resource waste" (A, above) and, therefore, by not directly impinging on these cases, can be considered as "new problems," -- for example, a new manifestation of an old problem such as supply. This classification is rather fictitious in the sense that what is classified as "new," such as supply problems, have direct bearing on, say, inventory hoarding, one of the "old" problems dealt with above. As in the case of most analyses in economics, the purpose of ceteris paribus is methodological and not substantive.

Clearly, gains are possible. If "departmental barriers" are eliminated, if the appropriate decision-makers are fully aware of "local conditions," and if some appropriate checklist* is explicitly given to each official (for example, the CNE chairman), then gains are quite apparent, in the form of both input savings and output increases.

But the magnitude of these gains should not be overestimated. The area of gains with the least qualifiers would be in the use of excess inventories. But even here it is necessary to question the official definition of "excessive."** In treating the other special categories, the qualifying items become more numerous, and in the most important general case, that of planning investments and their implementation, the gains may be restricted to a minor consideration, such as better distribution of building supplies. It is of interest that when a subaggregate computation of a type of gain is made, such as the cited case for transportation savings for the Ukraine, the "maximum" computed gain amounts to only 4 to 5 percent of the base total. Yet, as in other cases, what is officially designated as "optimum" for reducing waste in the transportation sector is unlikely to be realized.***

Again, in the vaunted case of consolidating a common resource requirement, such as foundries, the evidence indicates relatively minor savings. In the Moscow City CNE, for example, the "high-cost" foundries (small capacity, mostly unmechanized) comprised more than half of the 71 foundries producing iron and steel castings. Even though these foundries comprised more than

* Each CNE chairman, for example, is ordered to compare relative costs of producing castings and to go snooping around warehouses for excess inventory.

** Or, for example, are the legal limits on tons of rolled metal which a plant may have on hand per 100 units of finished output of metal goods adequate to meet requirements even when it is assumed that the "old" problems of distribution and supply have been eliminated and not replaced by "new" problems of distribution and supply have been eliminated and not replaced by "new" problems of distribution and supply?

*** Besides the undoubted overoptimism of the official author (who probably included shipments that were indeed rational or impossible to halt for other reasons), there is the view attributed to the leading Soviet transport economist that cross hauling, a major type of "irrational transportation," will not decline.

half of the 71 foundries producing iron and steel castings. Even though these foundries comprised more than half of the plants, they produced only 2.4 percent of all the output of castings for the CNE.* Thus, although the savings per casting may be large from closing the small "high-cost" foundries, the very fact that their total contribution to castings output was minor means that total savings cannot be very significant.

Two over-all comments are also relevant at this point which limit optimism concerning gains from the effects of the reforms on these special cases†: (1) the Soviet press dramatized the need for organization, and their frequent examples of inefficiency are certainly the more glaring cases, and (2) most of the categories of inefficiencies and specific cases were already well known to officials and were the subject of campaigns or other methods of control in the past, but they have been tolerated at their present levels in recent times. If "losses" had been very great from any one category, campaigns would have been in order.

In sum total, it can be said intuitively that definite gains** will result in the transitional period***but that one cannot expect large gains.

* Output may be expressed in weight; the value may be higher.

+ It should be remembered, of course, that the rationale for the reorganization stressed the change in the "rules of the game" in making decisions. This subject is treated below.

** Or net increase in output, as expressed in industrial indexes or in gross national product at constant prices.

*** The transitional period may cover a 4- or 5-year period -- that is, the time to work out the above effects in exhausting the opportunities for gain from the original resource base. Actually, in the period after the short-run effects are felt in the transition, with the input of resources constant, output will be less than in the transition, as the use of excess stock (inventory) or raw materials will give only a temporary boost. Therefore, final short-run "equilibrium" (in our special sense, given our constraints) will come about in the longer run, and output will be greater than before the reorganization but less than during the transition.

After the transitional effects on the resource base have been determined, the next interesting question concerns what the effects would be on economic growth in the longer run, by way of correcting wastes in the use of resources (from the seven special categories) through the reorganization.

In the long run the constraints on growth (introduced to analyze the transitional effects) are relaxed and "normal" growth resumed; all the factors affecting growth now become variables. Because the stock of opportunities for gain from the resource base itself is now exhausted, the new opportunities consist of avoiding the mistakes formerly made each year. It must be remembered that the transitional gains resulted from an accumulation of foregone opportunities over many years. The annual crop of mistakes which would have been made under the old system would be only a small fraction of the accumulation of mistakes.*

IV. Changes in Decision-Making Procedures and the Effects on Growth.

The discussion of economic effects of the reorganization so far has taken into account changes in decision-making impinging directly on the several categories of official complaints treated above. A more general analysis is now undertaken of the change (or lack of change) in basic decision-making processes that affect the over-all allocation and use of resources.

The most feasible way to discuss the effects of the reorganization on decision-making is to analyze separately the various economic functions in order to answer the following questions: (1) who in the pyramid of the decision-makers from the Presidium of the Central Committee of the Communist Party down to the plant manager had the authority and responsibility of deciding between alternative courses of action in each matter before the industrial reorganization, and who now exercises the authority and responsibility after the reorganization? and (2) if authority has changed (moved up or down, or horizontally, in the "pyramid"), what have been the effects on the use of productive resources?

The list of relevant topics is as follows: (1) investment, (2) wages, (3) working capital, (4) distribution of supplies, (5) planning, and (6) success-indicators and decision-making at the enterprise level. The discussion is restricted to changes under the general reorganization scheme of 1957 and modifications since the, with reference to only such earlier changes as are necessary to an understanding of the 1957 reorganization.

* Thus, if the exhaustion of the stockpile of gains to be had from reorganization from the seven categories could, for illustrative purposes, initially increase total industrial output by 5 percent, the maximum continuing annual gains that would be forthcoming when "normal" growth is resumed can be defined under the hypothetical assumption above. For example, if industrial growth after the transitional period under the previous form of organization had come to 10 percent and all

A. Investment.

Decisions on important aspects of investment remain, as they have since the initiation of the Five Year Plans, reserved to the top Soviet leadership. The determination of the share of national product to investments and the priority ranking of sectors (for example, heavy versus light industry), as before, is made at the Presidium level of the Party. The allocations of funds to branches within the sectors (for example, petroleum versus coal) down to the final selection of all "significant" projects are decided by USSR Gosplan and the USSR Council of Ministers.

Even the so-called "decentralized" state and cooperative investments (about 10 percent of total investments) are determined within guidelines and general targets set by USSR Gosplan. Within the "centralized" category of investment financed by All-Union budget sources, however, the republic councils of ministers may authorize projects costing less than 50 million rubles (roughly comparable to \$8 million*), but even here the central organs reserve a veto power through financial control if the over-all magnitudes (by category) are not consistent with the intended pattern set by the central organs.**

These departures from almost complete detailed central control were introduced in the period between Stalin's death and the 1957 reorganization. They involve passing down decision-making powers over a small segment of investments that were very difficult to administer from the center. Nevertheless, the center may easily alter the definition of categories within "centralized" and "decentralized" investments in a subsequent year if the lower echelons have not followed its implicit preference pattern in any year.

Under the reorganization formula of 1957, certain rights were given to the CNE in investment planning and plan implementation. These changes, like the earlier devolution of minor functions in investment decision-making, really changed little from the former pattern of investment decision-making. Specifically, CNE's may redistribute capital investments among construction projects within a single industry or construction administration "depending on circumstances," with the circumstances not stipulated. With the "consent of USSR Gosplan" the CNE may shift investment funds among different industries.

* Converted on the basis of the ruble-dollar ratio for investment of approximately 6.25 rubles per dollar.

** A recent article in Izvestiya said that the republic councils of ministers "must check the list" of these projects (below the 50 million rubles "in order to exclude projects of secondary importance" (to the state)).

The Soviet press release on the law concerning the authority and responsibilities of the CNE* notes further constraints on these already circumscribed rights. No decision to shift investment can be made if it "affects the commissioning of new productive capacity and living space." Literally interpreted, this last reservation would severely limit choice on the part of the CNE.

It was also stipulated that "if the cost of the project is under 25 million rubles (roughly \$4 million),** the CNE may define the method of approving or changing it." The most liberal interpretation of this passage would mean that the CNE might plan and authorize projects below this limit if it is able to finance them from its own resources or convince the central organs to direct the state banks to finance the projects. Evidence for an opposite interpretation (that there is no real authority to spend even a kopek)***comes from the many cases of violations by the CNE in the case of "centralized" investment funds granted by the center for specific projects. These violations suggest that resources for the CNE's pet projects are not available through legal channels (projects reported by the press are all less than 25 million rubles).

The CNE can "approve and alter" the future plans for investment of its subordinate enterprises before they are sent forward to republic and All-Union planning organs. Since the center still has final say, changes, in reality, have been meaningless.

* The statutes defining CNE rights have never been published. The law on the industrial reorganization passed by the USSR Supreme Soviet on 10 May 1957 stipulated (section 19) that "the USSR Council of Ministers shall work out and approve statutes...on councils of national economy of economic administrative regions...." An article appearing in Partiynaya zhizn' for 17 October 1957, entitled "What Are the Obligations and Rights of the Council of National Economy?" is the most informative "official" statement on these matters.

** Converted on the basis of the ruble-dollar ratio for investment of approximately 6.25 rubles per dollar.

*** Other than what was already defined in the "decentralized" investment category before the 1957 reforms. Apparently the reference to "keeping at its own (CNE) disposal a certain reserve ... of capital investments" means a continuation of the financial sources under the former "decentralized" system.

The benefit expected to arise from USSR Gosplan or Ukraine Gosplan being better informed by the local CNE than by the former ministerial officials, so that they could base their choice of alternative projects on more complete information, may be offset by the following three factors. (a) Each CNE would like to have its "importance" (value of total output) increase and may tend to swamp the republic Gosplans with draft projects; the republic Gosplans in turn would like to see their republics get a larger share of investment funds to "compete" against other areas; thus data forwarded by the CNE and the republic may be biased. (b) Although the industrial ministers were formerly accused of similar parochial practices, at least they had the "All-Union outlook" for their branch of industry and the technical expertise upon which to base a choice, say, for a plant site. This former concentration of expert opinion surely must have been diluted in the transfer of specialists from the former ministries to USSR Gosplan's new branch of industry sections (for example, some were transferred to CNE's). (c) There will be a tendency on the part of a CNE and each higher echelon to pass project plans to the center that are capital intensive -- that is, given the lack of interest rates, the unrealistically low depreciation charges, and the increasingly tight supply of labor.*

The control function of watching out for the "interest of the state" in the area of investments lies primarily with financial and Party organs. The local offices of the USSR Ministry of Finance or the State Bank control the release of funds for the specific projects authorized by councils of Ministers and Gosplan at the All-Union and/or republic level.

The first secretary of the oblast committee of the Party provides another means of control over the CNE's use of investment funds. In reference to the CNE's misuse of centrally allocated investment funds, it is often flatly stated that the local financial and Party organs were in collusion with the CNE.

In the case of the Karaganda CNE cited above, the oblast and city Party committees were condemned for conniving with the CNE in shifting investment funds. In the case of the Tashkent and Samarkand CNE's the Ministry of Finance of Uzbek SSR and the Uzbek Office of the Industrial Bank were accused of not protesting these shifts even though control is the direct responsibility of the financial organs and the banks. From the evidence presented, the, it seems that the CNE actually has little freedom of choice in using its investment funds.

* The first two items concerning charges for capital are not very serious factors at present, as there is only a "weak" incentive on the part of the CNE and its individual enterprises to earn profits.

B. Wages.

The wage rates and total wage funds for each enterprise are, as before, set by USSR Gosplan in consultation with the State Committee on Labor and Wages, attached to the USSR Council of Ministers. The CNE, however, has the right to pay bonuses* "to the workers of enterprises and organizations for important achievements." The extent of the bonuses is not stipulated but must be "within the limit of the total wage fund fixed" for the CNE. As in the case of capital investments, the CNE is circumscribed severely in setting wage rates and wage fund levels.

C. Working Capital.

The CNE seems to have less freedom to maneuver working capital among its enterprises than did the former ministries. Each ministry and main administration formerly redistributed "surplus" working capital on a monthly basis from efficient (profitable) plants to lagging plants. These lagging enterprises often required temporary financial assistance to purchase more inputs of materials and the like than stipulated in the plan.**

Whereas the ministry or main administration could formerly maneuver funds, the CNE can "redistribute such working capital only according to the annual statements of accounts and the changes in the financial plans" (and even then at the end of the year the CNE apparently must obtain permission from above in the form of a plan for redistribution).

The CNE can use other funds ("its own reserves") to offer "temporary financial assistance to enterprises" to "cover their shortage of working capital" within the established norms. That this rather ambiguous wording of the statute or the lack of "own reserves" serves to curb CNE maneuverability in shifting resources internally is seen from several suggestions that a CNE be granted the right to redistribute working capital quarterly instead of annually.

* This system of bonuses will be in addition to the bonus systems controlled from the center. As no details are known concerning the new CNE system, it is difficult to determine whether it is a strong incentive weapon in the hands of the CNE.

** The original allocation to each plant of working capital is based on norms set forth in the plan and so narrowly defined that, if planned input savings are not actually met, the plant might find itself temporarily unable to finance its additional needs for resources (above plan norms and therefore above plan allowances for working capital) in order to meet its output goals.

D. Distribution of Supplies.

The supply system, from the point of view of the enterprise manager looking upward, remains largely intact. The enterprise manager still requires an allocation order to purchase materials. And these individual orders, from steel to sewing thread, are intricately related to the output and supply plans of the enterprise, both of which are ratified from above.

All goods remain classified into three distribution groups--funded, centralized, and decentralized.* The funded and centralized commodities (the distribution of which to the republics is controlled by USSR Gosplan) cover all important industrial materials. The inter-enterprise contracts are based on approved supply plans, drafts of which are submitted from the CNE to USSR Gosplan along with the production plan (via the republic Gosplan and the republic council of ministers). Once allocations are made** to each firm and contracts with other firms are concluded, then the sales and distribution organizations at the republic level handle the administrative problems of moving the materials.***

An interesting aspect of commodity distribution to industrial firms under the reorganization is the persistence under a new guise of the supply problems that existed before the reorganization. Many of the important types of "irrationalities" alleged to be a consequence of the previous form of industrial organization**** were caused by the "complete undependability" of the plant manager's sources of supply. After the production and supply plans had been approved and contracts signed, the individual firm, under the former system, was never assured that timely supplies necessary to fulfill the output targets would be forthcoming. This basic uncertainty gave an incentive for firms, groups of firms under main administrations, and larger groups under ministries, to become self-contained, producing as many as possible of the required semifabricated materials in the firm, or at least within the ministry, regardless of production costs or transportation charges. This defect in the

* Recently there have been moves to merge these categories into two -- "centralized," comprising the former funded and some of the former centralized, and "decentralized," broadened to include additional items no longer under detailed central control and subdivided by echelon.

** Aggregated on the way up from CNE to USSR Gosplan and disaggregated at each level on the way down as approved plans.

*** Formerly done by main administrations for sales attached to USSR ministries and after reorganization, temporarily, by the same organizations transferred from the ministries to USSR Gosplan.

**** Such as the failure of the firm to subcontract for goods and services from lower cost firms, cross hauling, and the like.

system was the function not only of the high output targets that engendered perpetual shortages and low inventories but also of the basic incentive of a producer who supplies other plants to fulfill his own primary output targets in order to receive premiums. In order to fulfill his plan and receive his bonuses, the manager of Plant A (supplier) did not in many cases have to produce the assortment that was stipulated in the monthly plan, and thus in the contract, with Plant B (the buyer).*

From the buyer's point of view (Plant B contracting from Plant A), the exact assortment with the specified quality was the important thing. Therefore, when Plant B found that Plant A was not supplying the right assortment or quality of assortment, as stipulated in the contract, Plant B turned to more reliable sources** (its own shop, its own main administration, or its own ministry).

This motivation of the manager of the Soviet industrial firm and the resulting influence on production and distribution gives the setting for changes under the reorganization. It was intended that within the individual CNE there would be efficiency gains from the fact that Plant B would be assured of supplies from Plant A in the right assortment and quality,

* The manager of Plant A could "simulate" plan fulfillment by producing quantities of specific products (for example, 12 units of Product X -- size 6 pumps, 8 units of Product Y -- size 10 pumps, and no units of Product Z -- castings which were not specific products in the plan including the contracts with other firms. The plan may have called for 8 units of Product X, 8 units of Product Y, and 4 units of Product Z. What was necessary was to fulfill value of total output goals (in order to receive premiums). Besides not fulfilling the right assortment (and still remain "consistent" with plan fulfillment), he could "simulate" output by producing the proper mix but not the specified quality.

** This description of the plant manager's motivations is necessarily simplified. As Berliner points out, the producer does react to the customer's specific need, especially "in the case of highest priority customers such as the military." "But," Berliner continues, "the reaction of lower priority customers is less a source of concern. At the worst the planned purchaser may bring suit for breach of contract and be awarded damages." But "financial losses are secondary to the consideration of output targets and premiums" (that is, secondary to the manager of Plant A who can "write off" such losses as firm expenses without personal loss). As Berliner indicates, "if there is a clear choice between no fines and underfulfillment on the one hand, and fines plus overfulfillment on the other, there is little doubt that the latter alternative is preferred."

at least when Plant A and B were under the same CNE (as was the typical case for ancillary-type activity of common resource problems such as castings and forgings). Therefore, as a choice was now open to Plant B and the CNE, based on the criterion of the cheapest source of supply, efficiency gains were possible.*

To offset the tendency for local autarky (for hoarding or for preference to local buyers when production is short of plan), a law was enacted on 22 May 1957 obligating a CNE and its plant managers to fulfill first those contracts with firms external to the CNE. The incentive for such fulfillment was through the basic bonus -- that is, the output plan for Plant A was not considered fulfilled and thus premiums would not be paid to the manager of Plant A if deliveries to Plant B (which in this example would be outside the CNE) were not filled as specified by contract. The press barrage, after the first 6 months of the reorganization, against "localism" and the failure of CNE's and their enterprises to fulfill external commitments suggest that the incentive of the basic bonus alone was not enough.**

On 24 April 1958, less than a year after the reforms were initiated, a law was passed to give a further "incentive" for Plant A and its CNE to fulfill contracts with Plant B in another CNE. The published version (a month later) clearly indicates a step back from the reorganizations' aim of releasing "local initiative": "Nonfulfillment ... by responsible persons of enterprises, economic organizations, sovnarkhozy, ministries, and departments of plans and tasks (contracts) for supply of products to other economic administrative regions or republics, and also for All-Union needs, is a severe breach of state discipline and subjects the person to disciplinary, material, or criminal responsibility."

"Those...who are guilty of nonfulfillment -- without valid cause -- of plans and tasks for these supplies, are to be given strict disciplinary or financial penalties to the extent of up to 3 months' payment of wages."

* Presumably the CNE would enforce a product mix on Plant A when Plant B protested, as in general the CNE would be interested (unlike the former main administration) in what is actually produced for the other CNE plants.

** The problem may have been one of who was to receive the bonuses. The manager of Plant A, being presumably motivated principally by premiums, may have wanted to fulfill his external contracts first even to the detriment of internal commitments. The CNE chairman without a bonus motivation but with a motivation of fulfilling the CNE's over-all plan and thus of supplying all internal needs first (and in some cases overfulfilling the internal plans for supply) may have vetoed the desire of the manager of Plant A to fulfill the external contracts. Although there have been suggestions that premiums for enterprise plan fulfillment be extended upward to CNE officials, it is not certain that they were.

In cases of repeated nonfulfillment without valid reason, "the responsible person will be subject to criminal prosecution, as is appropriate to the crime."

Personal rather than enterprise responsibility for fines was imposed. The carrot (bonuses) was first used and then the stick (fines and imprisonment).

Presuming that the latest decree will close the chinks and that every CNE will now fulfill all external contracts regardless of the effect on internal plan fulfillment, what will be the effect on the use of resources?

Clearly, there will be a tendency for an enterprise manager to do one of the following three things: (1) to attempt to conclude contracts with firms outside of his CNE to supply his plant with materials rather than with firms inside his CNE; (2) if this is not feasible, to tend to become more reliant on his own resources (produce his own castings, hardware, and the like) rather than rely on Plant A in the same CNE; or (3) to attempt to conclude most of his contracts to supply other firms within his CNE. The CNE chairman in turn will be motivated to (1) supply his CNE from outside sources instead of internally, or (2) prevent his firms from taking on outside contracts.

Of course these forces are self-contradictory (every firm cannot simultaneously try to conclude external supply contracts and be unwilling to take on contracts to provide for external buyers), and a judgment is not made as to which of the forces will be the strongest.* Nor is a judgment being made as to the degree of "accidental rationality" that may prevail after "equilibrium"** will prevail. The point to be made is that administrative measures of this type clearly indicate the lack of any "objective criteria" on which the firm manager or CNE chairman can act to carry out in a more efficient manner what the central authorities want him to do.*** Whereas the logic

* It will vary by region and circumstance, although there probably will be a certain net tendency to become self-reliant on one's own plant which will clearly offset the prevailing tendency toward specializing.

** After all the forces have had time to have their impact on contractual relations.

*** More efficient, not most efficient, because the planners in USSR Gosplan do not know exactly what the Presidium's ordering (preference function) would be. When the terms efficiency or rational are used, we mean, as before, from the point of view of the leadership.

was clear when the original reforms of 1957 tended to encourage a CNE to make a choice based on comparative cost, the more recent administrative measures may tend to neutralize the original gains if not cause a "net loss."*

E. Planning.

In the post-Stalin era, there has been much concern over the conduct of planning. Criticism increased as time went by and as the planners worked with an ever more complex and sophisticated economy. When "disproportions" appeared (ever more frequently) or when someone wanted to complain about the economy's performance, planning practices and the planners themselves were loosely attacked for being too "mechanical," "remote," or "isolated."

By 1953 the production and materials allocation sections of the national economic plan contained more than twice as many specific items as in 1940. In trying to curb excessive detail, the post-Stalin regime by 1955 had reduced the number of production targets through aggregation by about a third and had halved the number of allocated commodities specified in the plan.

The list was not shortened as to the types of commodities planned by the central authorities, however, but simply by the amount of detail under each commodity (categories of each grade and size of the commodity). This task of working out the detailed targets down to all the subproducts (by each specification of grade and size) was assigned to the individual ministries. This "decentralization of planning at the top" came to a halt at the time of the 1957 reforms, and all the branch of industry planning as well as current and long-range planning came to roost in USSR Gosplan.

* The basic arithmetic is as follows: Plant A plans to produce 100 units of X, 50 units of which it plans to ship to Plant B inside the CNE and 50 units to Plant C outside the CNE. If it produces only 90 units (90 percent of plan) it will, under the present "criteria," fulfill its external contract by 100 percent (ship 50 units) and its internal contract by 80 percent (ship 40 units). Where is the rationality in this? Under the "criteria" of 1957, Plant A may have reversed the procedure (as is indicated from the evidence) -- that is, Plant A did fulfill its external contract by 80 percent and its internal contract by 100 percent (and sometimes 70 and 110 percent respectively). The plant manager did this at the risk of losing his bonus but had administrative pressure from the CNE to fulfill and overfulfill internal contracts. Again, from the central planners' point of view this is not the rational solution. Under the 1958 revisions the new "incentives" make the manager of Plant A more of a "loser" than under the "no bonus" stipulation of 1957. This may or may not be enough to make him reverse his former procedure of fulfilling internal contracts first. The fact that the CNE chairman now is a "loser" under the new rules (he too will lose 3 months' salary) may mean a reversal. In any case, whether the tendency will remain the same or will be reversed, neither solution is the one preferred by central planners.

Under the new form of organization, enterprises were to initiate the plans, submitting them to the CNE, which in turn would submit them to the republic Gosplans and councils of ministers. The republic organs would in turn submit these plans to USSR Gosplan. This was to "release local initiative" and make planning less "remote." This "change," however, is not significant, because enterprises formerly filled in much of the detail and reviewed the general targets "sent down" from the center concerning specific output targets, labor force and wages, cost of production, supplies of materials, and the like. Whether initiated by the enterprise or sent down from the center, the drafting and coordinating of the plan are accompanied by hard bargaining on the part of the plant manager, who has much at stake. There are indications from several sources, however, that the old planning processes are still in effect under a more "democratic" name. The summation of the enterprise draft plans for 1958 for output increases for the Sverdlovsk CNE came to 3 percent. The CNE branch of industry administrations reviewed the plans and raised them to an increase of 4.4 percent, the CNE raised them to 5 percent, and the RSFSR Gosplan raised them further to 5.5 percent. What USSR Gosplan finally did was not reported in the source.

Complaints from the lower levels have alleged that republic and USSR Gosplans often ignore the CNE draft plans submitted to them and start computing "from scratch," or they direct the individual plant managers to appear for a review -- thus skirting CNE channels.

After the initial merging of the central planning functions in 1957, there is now agitation for further simplifying the plans and more decentralizing. As to detail, the number of specified production targets in the national plan in 1958 was reduced to 1,042 compared with 1,640 in 1957.

But who is to plan the vital details -- for example, product mix? Formerly, when the plan was simplified at USSR Gosplan level (as it was in 1955), the ministries and their main administrations which had the "national interest" in mind planned the specific commodity goals as to assortment of grade and size.

In a "plan by priority" economy such as the USSR, where prices and profits are meaningless in the market economy sense, each commodity must be specified in the plan down to its smallest variant (for example, 10 tons of sixpenny nails made of Grade 2 steel). Now it is proposed that the plans be developed in detail at the lower levels. How will the Ukrainian Gosplan know specifically how many sixpenny nails it will supply the economy outside of the Ukraine? If the Ukrainian Gosplan got an order to produce 10 tons of nails (without further specification), it would naturally produce the nails the "easiest" way

(one way is to find the size of nail with the greatest cost-price differential).*

Of course, the state will not allow** such freedom of choice, and all the talk about "decentralizing" planning must be taken in the sense of administrative improvements rather than of fundamental policy changes that would affect the methodology or underlying philosophy of the planning process.

F. Decision-Making from the Point of View of the Enterprise Manager.

The question may well be asked, What about the climate of decision-making surrounding the manager of the individual enterprise? From the above discussions (of supply, production choices, specific motivations, and the like), it can be concluded that there really has been very little meaningful change in the "rules of the game" -- that is, the spectrum of choice has not significantly widened. When it has widened, there has not been a sustaining of choice when voluntary or involuntary choices were given to the manager.***

* The same problem would arise with respect to a CNE if it was simply given a plan to produce 10 tons of nails. In the past, when enterprise managers had a choice, they would produce the "easiest" product, which would not necessarily be the right one as far as the state was concerned. The fact that the plan was expanded in such detail between 1940 and 1953 probably was motivated by the desire to narrow the choice of the producer to produce specifically what was required by the central organs.

** Perhaps it would be more correct to say that the state will not wish to allow. In the past the production of nails was "simulated" even under the detailed plan -- that is, "wrong" sizes were produced and the firm's plan was considered fulfilled (based on value or tons of output -- for example, nails) even though the main administration of the ministry had specified the size and quality. The point to be made here is that -- even under the detailed plans heretofore -- the right assortment was not produced. The reduction in the number of plan indicators (as to assortment, and the like) without meaningful criteria (for example, prices and profits in a market economy) will only aggravate the assortment problem.

*** When the manager and/or the CNE was found reneging on external contracts, this loophole was "closed" (the state hopes) and thus an alternative "choice" was eliminated.

Thus, although the planning process now begins with the firm, there is no real change from the former procedure, because the plan of the firm is only a proposal and USSR Gosplan will make the final decision regarding it.*

Profits may have come to be even less of an incentive to the enterprise manager than they were before.** Of the profits retained by the firm, 70 percent must be spent on housing and the remainder that is not taxed away goes to the CNE.***

Prices remain given and are only meaningful (as they were before) when cost-price ratios are different and the enterprise director has a choice of producing one of several items in order to fulfill his plan target (expressed in ruble value of output, say, for nails, and the cost-price ratios differ for various-size nails). This type of practice is strongly condemned as "anti-state" (as always), and thus this is a use of prices that the state will attempt to neutralize.

Shifting of the "center of gravity" (Khrushchev) from the main administration and the ministry in Moscow to the CNE was to yield gains by improving "day-by-day" economic decisions. Such decisions involve responses to emergency conditions or

* The firm has always made a counterproposal to the plan. It now makes the initial proposal. In both cases the final authority lies at the center.

** No student of the Soviet economy has suggested that the firm manager was ever primarily motivated by profits. Certainly he does not attempt to maximize profits as this would be in conflict with the "success indicators" of plan fulfillment (primarily output targets) and the earning of premiums. Berliner, in his work on the management of a Soviet enterprise, contends that the single important motivation of the enterprise manager is his desire to earn premiums; Nove argues in favor of plan fulfillment as the primary success indicator. This is a pedantic difference because the premium and plan fulfillment motivations are two sides of the same coin. Thus in order to earn premiums, the manager must meet the important plan targets.

*** Profits, however, seem important enough from the CNE point of view for them to attempt to have planned profits low so that above-plan profits which can be retained are larger. As in other cases of "local initiative," the practice is condemned, and new controls are introduced to narrow the freedom of choice.

bottlenecks as well as detailed monitoring and adjustment to plan fulfillment. Responsible leadership on the spot should enhance the timeliness of such decisions. The changes are difficult to discern because (1) there are indications that the decisions of this type which the government seemed anxious to have "shifted" from the center to the CNE and to the enterprise were really not shifted, either because of timidity by the CNE or because of reluctance on the part of central authorities to release their direct control and because (2) there is little evidence on which to base a judgment that there are important types* of production "errors" committed in the past that have been corrected.

There are certain intuitive judgments that may be stated. The CNE chairman will not have certain incentives that the enterprise will not have.** Out of this interrelationship of incentives may come a pattern of resource use that is "better" than before.

For example, there is now an incentive on the part of a local official (the CNE chairman) to see that the part of the output of the enterprise which remains within the area of the CNE for the use of other firms will not be "simulated" -- that is, the product mix according to specific grades and quality as stipulated in the plan will be enforced for that part of the plant's output used internally in the CNE.

The proximity of the CNE should reduce the "degree of ignorance" of the immediate superior, in the form of the CNE chairman, compared with the former main administration and ministry, both located in Moscow -- for example, the chairman will be better informed of the enterprise's production possibilities, will make the enterprise manager "honest" in reporting, and will be able to ascertain from all the facts*** what decisions should be made rapidly by the CNE or by the center.

* Such as operational functions (that are perhaps of major importance to the firm and in an aggregate sense important) that can be "decentralized" and be consistent with centralized planning, leadership, and control.

** He will also have certain incentives which the former main administration and ministry officials did not have when located in Moscow. The major function here would be the difference in the "degree of ignorance" between the former ministerial types and the present members of the CNE because of location alone.

*** Not the selected facts reported by long distance to his predecessor, the head of the main administration, by the enterprise manager.