

L. 5.2

RFD 601

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Division of International Finance

REVIEW OF FOREIGN DEVELOPMENTS

January 3, 1967

Paul Gekker

The Financing of Capital Investment
in the USSR

33 pages

This paper reflects the personal opinion of the author and must not be interpreted as representing the opinion of the Board of Governors. It was prepared primarily for internal circulation within the Federal Reserve System, and must not be cited, quoted, or reprinted without permission.

THE FINANCING OF CAPITAL INVESTMENT IN THE USSR

Paul Gekker*

I. Investment Finance: The Problem and Its Setting

The notion that the Soviet economy is at a new and quite different stage in its development is now very widely held. This view is based on two broad types of evidence. There is first the record of a decline in recent years in the rate of Soviet growth. This slowing in the growth rate has a number of causes but one major determinant has been a falling off in the rate of capital investment. It is one of the themes of this paper that financing methods have contributed to the less satisfactory investment performance of the last few years.

The second basis for supposing that Soviet economic development has reached a new stage is the evidence that the Soviet leaders have become aware of the nature of many seemingly persistent problems they face in making their planned economy run efficiently. This awareness is surely the consequence in part of the wide-ranging and relatively uninhibited discussion of economic issues, conducted in recent years by academic economists, planners, industrial managers and many other individuals, representing interests at virtually every level of responsibility in the Soviet Union. The important point is that the regime now appears determined to explore meaningful ways of overcoming some of the defects of an over-centralized system.

* This article was prepared for presentation in December 1966 at the Annual Meeting of the American Finance Association, in San Francisco, and at the Workshop on Money and Finance in Communist Countries, at the University of California, in Berkeley, California. It reflects the personal views of the author, Senior Economist, Division of International Finance, Board of Governors of the Federal Reserve System, and is not to be taken as representing the opinion of the Board. The author wishes to express appreciation to Martin J. Kohn for helpful comments on an earlier version of this paper.

The new trend in the search for greater operating efficiency involves cautious experimentation in substituting some market elements, including financial incentives, for the system of detailed and centralized economic regulation and control. Along these lines, the Soviet authorities are moving to adopt two innovations in investment financing methods that are of considerable interest. One general reform, already implemented to some degree, involves the wider use of bank credit to finance capital investment, in place of the arrangement under which the bulk of investment is financed by direct, non-repayable budget grants. The second type of reform involves a significant increase in the share of investment that is financed from funds generated at the enterprise level; and, conceivably, it may also serve to extend the scope of investment decisions--hitherto negligible--initiated at the level of the Soviet enterprise. The most recent changes, dating from decisions taken at the Central Committee plenum in September 1965, are designed to improve investment performance and, in turn, economic growth processes. For the most part, the reforms are still in an embryonic stage, but they have in them a potential for significant re-structuring of the centrally planned and directed Soviet economy of the traditional type.

Investment and economic growth. The great importance of capital investment in Soviet economic development, especially in the growth of Soviet industry, is well understood. The ability of the Soviet authorities to compel the commitment of a large share of output to uses other than consumption goes far to explain the transformation of a predominantly

agrarian and relatively underdeveloped economy to its present position as the world's second leading industrial power. The evidence on this point seems fairly clear, whatever the many qualifications imposed by the incomplete and otherwise generally deficient character of the available statistical information. Over the plan period as a whole, the Soviet regime has been able to devote a significant share of gross national product to investment. Moreover, this share has risen in the postwar period, though the investment ratio has probably dropped off in the last few years.^{1/}

While Soviet economic development has generally depended upon maintenance of a high rate of capital investment, the impressive growth achieved would be difficult to explain without reference to those specific aspects of Soviet investment policy which were dictated by a single-minded drive to build the basic sinews of industrial strength in order to overcome a developmental lag within the shortest possible time. We know that, by comparison with the United States, the Soviet Union has devoted a larger share of total investment to the growth-inducive sectors--industry especially--than to such high capital intensive areas like housing and services.^{2/} The impact of investment on growth has been heightened by

^{1/} The data assembled and analyzed by Moorsteen and Powell show that in constant (1937) prices the ratio of investment to GNP rose from an average of 20 per cent in the five-year period 1946-50 to 22.3 per cent in 1951-55 and to 28.8 per cent in 1956-60. See Richard Moorsteen and Raymond P. Powell, The Soviet Capital Stock, 1928-62 (Homewood, Illinois: Richard D. Irwin, Inc., 1966), pp.173-4 and 227; the average ratios cited were calculated from data given in the table on page 364.

^{2/} In 1959-64, 34 per cent of total Soviet investment was allocated to industry (mining, manufacturing and construction), compared to 19 per cent in the United States in 1958-63. See Stanley H. Cohn, "Soviet Growth Retardation: Trends in Resource Availability and Efficiency," in New Direction in the Soviet Economy (Washington, D.C.; Government Printing Office, 1966), p.118.

concentrating resources and effort on the development of those leading sectors in which a given investment outlay generated proportionately higher output gains, and therefore exerted maximum leverage in promoting economic growth. It is useful to recall that this concentrated effort to force rapid industrial growth was undertaken at a time when levels of Soviet aggregate output and income were very much lower, so that the burden of the commitment to investment needs weighed much more heavily in terms of the restriction of consumption levels in the Soviet economy.

Among the reasons for the decline in recent years in the rate of Soviet economic growth, the falling off in the rate of capital investment is perhaps the single most important cause as well as the one most relevant to the subject of this paper.^{3/} We may distinguish two aspects of the reduced rate of capital investment. In the first place, investment has declined partly because of a shift to higher levels of defense spending, dating from mid-1961, and also because some investment has been curtailed in an effort to bring investment programs under better control because of a tendency for investment demand to be excessive.^{4/}

^{3/} The latest compendium of papers published by the Joint Economic Committee provides a detailed review of many aspects of recent Soviet economic performance. See New Directions in the Soviet Economy (Washington, D.C., Government Printing Office, 1966), especially Rush V. Greenslade, "The Soviet Economy in Transition," in Part I, pp.1-18.

^{4/} The decline in investment goes back to 1958 at least; the drop in investment was particularly evident in 1961, and it has continued to moderate since. See Martin J. Kohn, "The Soviet Economy in 1961," in Dimensions of Soviet Economic Power (Washington, D.C., Government Printing Office, 1962); and A. Nove, "Soviet Economic Progress," Lloyds Bank Review, October 1965.

Secondly, the changed priorities of the post-Stalin years required a shift in the pattern of capital investment away from the concentrated application on the further expansion of priority sectors that were favored, at the expense of so much else, under traditional Soviet growth strategy. By any standard, the list of competing demands on Soviet resources must be headed by agriculture, where some effort to redress a balance of long-standing neglect was probably the most pressing task of Stalin's successors. In addition, during the past decade a greater share of investment resources has been devoted to meeting other deferred needs, such as alleviating the extreme shortage of housing, and of increasing the output of consumer goods and services. These are sectors that are either slower growing by virtue of intensive capital requirements, or they make little contribution to further economic growth as conventionally defined and measured.

Investment finance and plan fulfillment. Our principal interest is in the financing of fixed capital investment in Soviet industry. This emphasis is partly a natural reflection of the idea that the industrial sector of the Soviet economy embraces a good deal of what is understood by the concept of a command economy of the Soviet type: the five-year plans, the priority of heavy industry, the machinery of centralized planning and tight administrative control, and the rest. The subject of investment in sectors besides industry--agriculture, for example--is undeniably of great interest and importance, but an investigation of the complex system of agricultural finance would extend beyond the permissible limits of a conference paper. The main difference is that collective farm investment

is financed entirely from internal resources, supplemented by long-term credit, so that no part of this category of farm investment is financed directly by the state. There is no distinction in principle between the financing of investment in State farms and in State-owned industry, both of which rely to a significant extent on direct outlays from the government budget. It is this feature of the system that is undergoing change.

The prevailing system of investment finance, developed by stages through the 1930's, has been retained without significant modification virtually to the present time. It provided for specific methods of financing certain familiar categories of capital investment in the State-owned industrial sector. We distinguish planned investment, comprising all investment projects valued above a certain sum (above-limit), which require approval by the central authorities, and projects under this minimum value (below-limit) which are included in the total of funds available for investment distributed by industrial branch. Planned investment is financed entirely from a combination of non-repayable budget grants--which in recent years have accounted for something under three-fourths of the total--and a combination of enterprise profits and that part of amortization funds not intended for capital repair. Planned investment is centralized with respect to both project planning and financing, although not all elements--the below-limit projects--require central approval. In addition, there is unplanned investment--an unfortunate misnomer since this category is under control--for which the planning of projects and the financing are decentralized.

The financing of unplanned investment comes from a combination of sources, of which the most important categories are enterprise funds and bank loans, in the form of short- and intermediate-term credits for reconstruction, new technology and some similar purposes.^{5/}

The pre-war development also included formation of a system of specialized long-term banks in order to control investment in separate sectors of the economy. The evolution of these institutions was a gradual process but by the late 1930's four long-term investment banks were organized in more or less the form they retained until the banking reorganization of mid-1959.^{6/} In essence, the long-term banks functioned as disbursing agents for the non-repayable budget grants and as control agencies responsible for supervising the implementation of projects financed through the budget.

Although investment is accounted "among the most tightly controlled activities in the economy," investment performance exhibits those intangible defects of the centralized command economy that have intrigued numerous observers of the Soviet economic scene.^{7/} To be sure, the apparent paradox

^{5/} Alec Nove, The Soviet Economy: An Introduction (New York: Frederick A. Praeger, 1961) pp.36, 108-111. Nove's useful tabulation (p.110) has not been retained in the revised (1965) edition of his text.

^{6/} The standard references to pre-war developments are Arthur Z. Arnold, Banks, Credit and Money in Soviet Russia (New York: Columbia University Press, 1937); and R. W. Davies, The Development of the Soviet Budgetary System (Cambridge University Press, 1958).

^{7/} The phrase is from Moorsteen and Powell (op.cit., page 229), whose major research has only recently appeared in print. I should, however, like to invite particular attention to Chapters 8-10, in which the authors present a valuable analysis of the relationship between investment and growth in the Soviet Union.

of tight control over investment planning and untidy investment activity becomes less mysterious in the light of descriptions in Soviet sources, which make it abundantly clear that the situation is inherent in an economic system which is under great strain. This being the case, one expects to find some link between the financial system and poor investment performance, and the link is suggested by two general and familiar points relating to the connection between finance and plan fulfillment. The primary emphasis in the Soviet economic process has been on the attainment of physical output targets in real terms. At the operating level of the economy plans have also included financial targets but these have always been considered of secondary importance in practice. The financial authorities have been important as control agencies, but their activities have generally been of a passive, of what Garvy calls an implementary, nature.^{8/} Control has therefore tended to be formal; it is not only that the financial authorities have rarely been able to use their considerable disciplinary powers to grant or refuse credit--because their action might interfere with the achievement of physical output targets--but that infractions of financial regulations appear to have been tacitly tolerated as long as the more important real plan goals were attained.^{9/}

^{8/} George Garvy, Money, Banking, and Credit in Eastern Europe (New York: Federal Reserve Bank of New York, 1966), p.27.

^{9/} Paul Gekker, "The Banking System of the U.S.S.R.," The Journal of the Institute of Bankers, Vol. 84, Part 3 (June 1963), reprinted in Morris Bornstein and Daniel R. Fusfeld, editors, The Soviet Economy, A Book of Readings, revised edition, (Homewood: Illinois: Richard D. Irwin, Inc., 1966).

In the second place, the financing of a very large share of total investment in Soviet industry by means of non-repayable grants has contributed to excessive demand for investment resources. Excessive investment demand is the most generalized cause of a host of defects in implementing planned investment programs; and it forms the background to the efforts of the authorities to improve investment performance by direct action, including the curtailment of some investment by selective measures.

Some of the numerous defects in the implementation of investment programs are not directly attributable to financial methods but they are persistent enough to be noted, at least in passing.^{10/} A great deal of complaint is voiced about investment planning, about errors in estimates and design work for example. Much of the critical coverage of investment performance in the Soviet concerns shortcomings in construction work. Almost all plant construction and equipment installation is conducted, on a contract basis, by special building enterprises, and it is here that many of the defects of performance are concentrated and magnified. One of the standard repetitive complaints concerns the lack of coordination of construction with the delivery of equipment; another complaint relates

^{10/} The interested reader will find a good discussion of these imperfections in two articles by Alec Nove: "The Industrial Planning System: Reforms in Prospect," Soviet Studies, XIV:1 (July 1962), pp.1-15; and "Planners' Preferences, Priorities and Reforms," The Economic Journal, LXXVI:302 (June 1966), pp.267-277.

to poor labor management practices, involving great losses in work time and much workmanship of a very shoddy sort.^{11/}

However, the prevailing method of investment financing-- the fact that the money, or a large part of it, is free--is responsible for some specific shortcomings of the system. The budget-financing system encourages over-bidding with the object of having one's investment included on the list of approved projects that is the heart of the centralized investment plan. Approval of an investment project assures the availability of financial resources for the investment and permits contracts to be let for labor and materials. The problem is that many more projects are in process than can be finished within a given period because concentration of resources and effort is made much more difficult; the volume of unfinished construction tends to rise partly because resources set aside for "new" approved projects may be just those that are needed to complete projects still underway.

The search for remedies. The persistence of a wide range of operating defects has led the Soviet leaders to seek solutions in a variety of ways. Attempts to improve the working efficiency of the

^{11/} To demonstrate the currency of these complaints, they have been taken more or less from the leading editorial in Pravda, June 22, 1966; but the citation could be duplicated, in distressing profusion, from the files of most students of Soviet economic affairs.

How seriously should one take complaints about building work? Is it just grouching? When he discusses investment in his recent book, Edward Ames reminds us that it is in the nature of construction work to be erratic since work schedules cannot normally be planned, the typical building firm has more than one job in hand, and people have to be kept busy. Therefore, he writes, "the building industry in the Soviet Union is under the same sort of continuous criticism that builders receive elsewhere." See Edward Ames, Soviet Economic Processes (Homewood, Illinois: Richard D. Irwin, Inc., 1965), pp.144-145.

Soviet economy are of course not new by any means. We need only recall that Khrushchev was "an innovator of impressive zeal," in whose time reform measures of every sort seemed to come in bewildering succession.^{12/} It is true that the present leaders have undone a number of Khrushchev's major organizational changes, but they have kept some of his reforms. Most importantly, they are committed to continue much of the previous general economic policy line, certainly as regards further improvement in the position of the Soviet consumer. In retrospect, however, Khrushchev's efforts to make the Soviet economy work more efficiently seemed to show a willingness to experiment fairly widely within the basic system. He stopped short, on the other hand, of any significant modification of the fundamental working principles that had guided the Soviet economy during the era of the five-year plans.

The changes Premier Kosygin and his associates are introducing in the Soviet industrial system contrast quite sharply with the kinds of solutions that Khrushchev sought to identical problems. The two approaches can be viewed in terms of what we may call--following Grossman's terminology--the centralization-decentralization balance.^{13/} The command economy is by definition one in which economic power is highly centralized. However, some decentralization is obviously required by the enormously complex task

^{12/} The descriptive label is from Robert W. Campbell, "Economics: Roads and Inroads," Problems of Communism, XIV:6 (November-December 1965), p.23.

^{13/} Grossman speaks of the "optimal degree of centralization (or decentralization)," which he calls "the chief persistent systemic problem of the command economy." See "Notes for a Theory of the Command Economy," Soviet Studies, XV:2 (October 1963), p.107.

of running a modern industrial economy. Devolution of some decision-making functions is also desirable in order to obtain the benefits of technical and professional skills at levels below the center. Khrushchev's organizational reforms not only little to establish a better centralization-decentralization mix in practice, but in fact promoted an undesirable degree of regional autarchy, as a result of which national interests lost out to "localist" tendencies in various forms. Khrushchev's substitution of a regional structure for the earlier centralized ministerial system of industrial management also made it vastly more difficult to formulate and carry through any unified policy in the field of technology, one of the strategically important determinants of future economic growth.

The present Soviet leaders have moved in quite different directions, having by and large restored a centralized organizational network in industry. But the regime's experimentation with changes embodying a number of ideas popularly associated with the name of Professor Liberman, of Kharkov, has understandably attracted much more interest.^{14/} The essence of these experiments is that they introduce

^{14/} Liberman was certainly a prime-mover in the economic discussion of recent years but the attention he has attracted unfortunately slights the important contributions of a number of other distinguished participants in the debate. When the history of this period is written, great pride of place will surely go to such eminent individuals as the late academician Nemchinov, and Professor Kantorovich, to name only two. See the article by Campbell, cited earlier, and his "Marx, Kantorovich and Novozhilov: Stoimost' versus Reality," Slavic Review, XX:3 (October 1965), pp.402-418; and Marshall I. Goldman, "Economic Controversy in the Soviet Union," Foreign Affairs, 41:3 (April 1963), pp.498-512. Alec Nove's "The Liberman Proposals," in Survey for April 1963 is a perceptive and engagingly written interim account.

some decentralization at the enterprise level, where it may exert meaningful leverage, by giving the enterprise manager greater autonomy, something much spoken of but little implemented in Khrushchev's time.

Lieberman's proposals were aimed chiefly at improving current operations of Soviet enterprises, at eliminating those effects of traditional measures of economic performance that produced goods for which there was insufficient demand, or indeed no demand at all. However, in urging an enhanced role for enterprise profit as an incentive, Lieberman's ideas fit in very well with methods of investment finance which would encourage managers to pursue profit goals as one means of obtaining investment funds. Under the existing system, this sort of incentive is either very weak, or entirely lacking.

The "new" Soviet economy: a contrast. The shift in emphasis is related to problems posed by that new stage of Soviet economic development to which reference was made at the outset. The traditional picture is one of a highly centralized command economy engaged in a "bootstrap" operation of basic industrialization under forced draft, with all that this implies for the allocation of human and material resources--chiefly, of course, the detailed machinery of tight political, economic and social control. This Stalinist recipe for rapid economic growth resulted in an economic system that has been overcommitted everywhere and at all times. Such well-known features as the pervasive shortages, the encouragement to hoard resources and the burdensome controls are merely generalized manifestations of the strains imposed by the basic industrialization drive. Some observers have viewed much of this system as a consequence of

overambitious planning. Others have contrasted progress in macroeconomic terms with microeconomic disorder on a large scale. A number of students have noted the existence of great inter- and intra-sectoral imbalance, especially in the technological sense, as an inevitable consequence of an overstrained growth program.^{15/}

Stalin's insistence at the end of the war on a resumption of his single-minded growth program undoubtedly delayed the emergence of a more mature stage of economic development. However, once pre-war output levels had been restored, the policy of repeating past patterns of expansion became increasingly irrelevant to the needs of a structurally and geographically more diversified economy, one approaching a stage marked by greater complexity of choice. As Smolinski argues so convincingly, the greater variety of output that comes from diversity of productive activity requires, for maximum efficiency, a much higher degree of specialization and of coordination and, especially, of synchronization of interdependent parts of the economic mechanism in the interest of obtaining that "intensive margin of growth" that is the prime requisite of further real economic progress.^{16/}

^{15/} The basic idea that resources are overcommitted almost everywhere in the Soviet system is standard to many excellent analytical studies. On overambitious planning, see Holland Hunter, "Optimum Tautness in Developmental Planning," Economic Development and Cultural Change, IX:4, Part I (July 1961); and his "Priorities and Shortfalls in Pre-war Soviet Planning," in Soviet Planning. Essays in Honour of Naum Jasny, edited by Jane Degras and Alec Nove (Oxford: Basil Blackwell, 1964). On the contrast between macro- and micro-economic aspects of the Soviet-type command economy, see Grossman's "Notes for a Theory of the Command Economy," previously cited. Leon Smolinski's "The Soviet Economy in Search of a Pattern," Survey, April 1966, is very good on technological imbalance, as is Gregory Grossman's "Innovation and Information in the Soviet Economy," The American Economic Review, LVI:2 (May 1966), pp.118-130. The reader should also consult Wiles' The Political Economy of Communism, especially the Chapter entitled "Choice versus Growth," pp.206-221.

^{16/} Survey, (April 1966), pp.92-94.

The Stalinist system, though perfectly equipped to force important priority objectives, was hardly suited to achieve finer adjustments in the economy. The new trend in reform appears as a reasoned reaction to the evidence that centralization of decision-making powers in many sectors of the economy becomes self-defeating as the economy matures. If quality improvements and other benefits are to be obtained, the enterprise manager must be given a much wider scope for making decisions. Managerial incentives must encourage him to function in such a way that these desirable improvements are not disregarded in an irrational and wasteful race for more gross output.

Methods of financing capital investment, like methods of running Soviet enterprises, are among those features of the centralized command system that seem to have outlived their usefulness with the passing of Stalin's simple priorities. The system combined a high degree of centralization of planning, materials allocation and investment with centralized methods of providing the financial counterparts. The choice was dictated by a need for strict control to ensure implementation of centralized programs, but financing methods were not designed to enlist the self-interest of enterprise managers in more efficient and technologically more advanced production methods. The changes now being introduced, however, envisage a considerable measure of decentralization of investment finance, making investment financing more cost-oriented and more dependent on sources of internally generated funds over which the enterprise will exercise some greater control.

The reservations to any notion that these changes mark a revolution in Soviet institutional arrangements will be noted in due course. However, one can argue that decentralized financing methods would correspond to a more balanced growth process that the Soviet economy should now be experiencing. While there is no reason to suppose that financing methods by themselves will guarantee elimination of some gnawing problems of economic planning and administration, financial reforms are perhaps a necessary step in the direction of creating a more rationally operating economic system.

II. Investment Finance in the "New" Soviet Economy

Writing in early 1965, Gregory Grossman ended his "digression through some corridors of Soviet investment finance" at a time of continued interesting discussion in the Soviet literature and, of course, before the introduction of important changes in investment finance at the September 1965 Central Committee plenum.^{17/} Our present task is to review some of the material and the issues, primarily in order to bring the record up to date and to venture some tentative evaluation of the most recent reforms.

Unfortunately, information available to us on the latest changes in investment financing methods, which are hardly more than a year old, is evidently highly provisional. Despite a great deal of published information,

^{17/} "Gold and the Sword: Money in the Soviet Command Economy," in Industrialization in Two Systems: Essays in Honor of Alexander Gerschenkron, edited by Henry Rosovsky (New York: John Wiley & Sons, Inc., 1966), page 227. Grossman's "digression" covers pages 217-226.

many features of the new financing arrangements are not precisely known, so that the description given here cannot be current in some respects. This suggests that arrangements are still in an interim stage or that the regulations are of a temporary nature. This seems to be the case, for example, with regard to the rules governing the distribution of internally generated funds and their use by the enterprise for investment purposes. In the past, rules governing the distribution and use of enterprise funds have been changed many times, and it is quite likely that the Soviet authorities have not yet worked out the system they regard as most effective for present needs. The evidence does suggest an attitude of caution in introducing these changes--all to the good, considering the record--but the analyst's position is nevertheless somewhat uncertain.

Alternatives in investment finance. We may take one of Grossman's comments as a point of departure for our closer look at investment finance in the contemporary Soviet economy. Grossman suggests that, though investment decisions are made in physical terms, "their outcome is not indifferent to the accompanying financing arrangements."^{18/} The reasons Grossman gives--that financial arrangements "localize" the supervision of investment, have some bearing on efficient execution, and may encourage constructive local initiative--are perfectly correct, though they have a definitely "modern" ring. However, his point is certainly not in conflict with an alternative view, which would argue that different financing arrangements may be appropriate to different stages of Soviet economic development and, indeed, to different historical conditions.^{19/}

^{18/} Op.cit., pp.217-218.

^{19/} The following summary is much influenced by the excellent treatment of investment finance in R. W. Davies, The Development of the Soviet Budgetary System, especially Chapters 6, 8, 9 and 11.

The development of the system of investment finance through the late 1930's reflected a choice between two different methods of financing capital investment in the State-owned sector. The solution provided for raising the bulk of investment funds through taxes and for financing the major share of industrial investment by direct non-repayable grants from the state budget, the balance was financed from internally generated funds--depreciation reserves and profits. The system was highly centralized with respect to collections and disbursements, utilizing the transfer and redistributive functions of the fiscal machinery.

One alternative to the prevailing method of financing investment through the budget would have been a system under which industry would finance capital investment entirely out of current income. This method would have required setting industrial sales (transfer) prices at levels sufficient to generate profits equal to the cost of capital investment. Under the budget-financing arrangement, industrial prices roughly equaled costs plus a nominal profit margin; and investment funds were generated by taxes collected on industrial goods at some stage in the chain of distribution.

On theoretical grounds, either of these methods of financing investment would seem to be compatible with a planned economic system. However, financing investment directly through industry was not feasible under earlier conditions. First, in order for industry to finance investment, a higher level of industrial prices would have been required. The resulting cost structure would have placed an extra burden on financing investment, especially in the priority heavy industry branches in which the

industrialization effort was concentrated. Secondly, it would manifestly have been impractical to make investment dependent on industry profit, in view of the considerable variation in enterprise profit performance. However, the principal argument for adopting budget financing methods was the greater degree of supervision and control inherent in this more centralized method. The principal defect of the budget financing method was that it lacked any mechanism which would tie the interests of the individual enterprise to the centralized investment program. The inability of the system to guide and encourage plan fulfillment by a combination of positive incentives (and penalties) probably explains the persistence of so many well-known operating defects.

Under present conditions, the greater complexity of choice among resource uses and the need to devote relatively larger increments of investment to slower growing sectors should mean that overall Soviet growth will be more balanced. This development may create conditions under which such heavy reliance on budget financing is no longer justified, and the new reforms appear to reflect this view. Thus, financing investment directly through industry would seem advantageous under conditions of a more even distribution between light and heavy industry, because the burden of higher prices and costs would no longer have to be borne exclusively by heavy industry, as would have been the case earlier. Moreover, the different structure of prices implied by a decentralized method may permit a greater degree of certainty with respect to profit plan fulfillment because the enterprise would have greater incentives to meet cost reduction targets in order to obtain investment funds.^{20/}

^{20/} Davies, op.cit., pp.149-152.

Postwar developments. The main features of the pre-war financing system remained unchanged for the first postwar decade. The familiar operating defects of the centralized system must have seemed relatively unimportant so long as the initial emphasis was on reconstruction and rehabilitation, and within the policy framework of the traditional growth strategy.

It is evident that the need for change in the tightly centralized system asserted itself upon Stalin's death, which affected economic priorities and resource allocation in interesting ways. Hardly more than three years later, the problem of excessive investment had become a matter of serious and controversial debate over the Sixth Five-Year Plan (1956-60), at the December 1956 Central Committee plenum.

Much of the criticism centered on the laxity of supervision of investment plan fulfillment by the long-term banks. One major complaint was that the banks disbursed funds automatically so that end-users could "fulfill" investment plan targets. Despite heavy and continuous criticism, control tended to remain formal because if the financial authorities tried to exert pressure they could be subjected to effective counteraction. Banking operations therefore contributed to the dispersal of funds and to the persistence of a large volume of unfinished construction.

Initially, efforts to improve control over investment performance involved organizational change. In early 1957 we find a generalized proposal for improving the organizational structure of the long-term banks because of the "major role" they should play in "liquidating shortcomings" in

construction.^{21/} Another recommendation for "strengthening the role of the State Bank and the long-term banks" formed part of Khrushchev's proposal for industrial reorganization in the spring of 1957.^{22/} However, steps to tighten control by the banking institutions appears to have been a particular response to the problems of "localism" that emerged soon after industrial reorganization went into effect in mid-1957. The most serious manifestation of localism involved the tendency of authorities in some regional councils (sovnarkhozy) to divert investment funds unilaterally to projects not included in the plans, or to projects of secondary importance--accounting for delays in constructing enterprises in the chemical industry and contributing to lags in housing construction.

The banking reorganization of mid-1959 was a move to centralize control to deal in part with these excesses. The reorganization provided for the liquidation of the Agricultural Bank and the Central Communal Bank, and for dividing their functions between the State Bank (Gosbank) and a new institution--the Investment Bank (Stroibank)--reorganized on the basis of the older Industrial Bank, which was also liquidated. The Investment Bank was given responsibility for budget financing of investment in all State-owned sectors--industry, trade, transport and communications and some housing construction--except State-owned agriculture. The financing of investment in agriculture, in State and collective farms, was made the responsibility of the State Bank, which thereby added investment banking

^{21/} Finansy SSSR, XVIII:2 (February 1957), page 5.

^{22/} O dal'neishem sovershenstvovanii organizatsii upravleniya promyshlennost'yu i stroitel'stvom (Moscow, Gosstatizdat, 1957), p.42.

operations to its principal function of providing virtually all short-term credit in the Soviet economy. The concentration of agricultural financing operations in the State Bank was probably dictated by a desire for perfecting control over this large and partly decentralized sector of the economy, where a significant degree of demonetization in the post-Stalin period has enhanced the importance of close relations between the monetary institutions and the farms.

The Soviet authorities also tried to improve control by numerous direct administrative measures. For example, a decree adopted in October 1958 provided for detailed review of construction projects and for the postponement or elimination of all "nonessential" building in order to permit concentration of funds on housing construction and essential public installations. Still later, the device was adopted of identifying "especially important projects" on which maximum effort was to be concentrated; in the 1960 economic plan, for example, 271 such projects were selected for special attention. Such efforts have continued almost to the present, and have involved restricting certain categories of investment from eligibility for the centrally approved investment list, and direct cuts in specific investment programs, as seems to have been done in the 1965 plan. However, the continuing discussion of familiar complaints on investment plan fulfillment suggests that neither organizational reforms nor direct measures brought much improvement. Indeed, it is tempting to think that continuation of the serious imperfections in the system may have been necessary to permit the germination of ideas for the sorts of reforms now being introduced.

New reforms in investment finance. The recent experiments in investment financing methods involve two types of changes. The first, under discussion for some years, involves the partial substitution of bank credit financing for the prevailing system of direct budget grants. The other more recent innovation involves the decentralization of some investment financing, making a larger share of investment dependent upon enterprise profit performance. The effects of these changes is to reduce the role of the state budget and to increase the portion of capital investment financed from internally generated funds (retained profits and depreciation) and bank credit.

In view of Grossman's very useful review of the discussion of loan financing, we need only cover some main points and make the record current. Interest in loan financing was evidently the outgrowth of experience with the limited purpose intermediate-term modernization loans which the State Bank was given authority to extend under a decree of August 1954. Early discussions of loan financing laid great stress on the disciplinary advantages of the repayment features of this financing method in spurring enterprise interest in better technology. Later discussion gradually included proposals for using credit for purposes wider than those limited objects for which modernization loans were authorized, and for liberalizing loan limits and maturity terms in order to fit them for a variety of specific investment needs. The compromise position that was apparently worked out in 1961, and which was not significantly changed until quite recently, permitted some extended use of these types of loans

to finance capital investment in existing enterprises, but budget financing was retained for investment in new construction.^{23/} By early 1965, loan financing for investment in new construction was being used on a selective and experimental basis; but by decision of the Central Committee, the principle of financing some forms of centralized investment by long-term credits was incorporated in regulations approved by the Council of Ministers on October 8, 1965.^{24/} The main change gave the Investment Bank authority to extend long-term loans to finance capital equipment intended for new enterprises, in addition to existing authority to finance the reconstruction and modernization of existing enterprises. The rules also specified, in considerable detail, the great variety of supervisory and control functions which the Investment Bank was to exercise to ensure investment plan fulfillment. These regulations greatly resemble the types of controls, worked out in the late 1930's, designed to enforce orderly plan implementation by gearing bank payments very strictly to stages of work in progress.^{25/}

Subsequent comment in Soviet sources makes it clear that the repayment feature of credit financing is regarded as providing the spur to technological progress that is absent when financing is cost-free. This is a questionable argument. Until now, the obstacle to more rapid technological innovation has not been financial resources but the decline in output--and

^{23/} In the summer of 1962 the author was told in Moscow that some State Bank officials favored the extended use of loan financing but that the idea was opposed by the Ministry of Finance. Possibly, the reported difference of views reflected no more than ministerial rivalries.

^{24/} The regulations ("Pravila finansirovaniya stroitel'stva") are printed in Ekonomicheskaya gazeta, 1965, No.45, pp.25-28.

^{25/} Davies, op.cit., pp.255-262.

the consequent loss of incentive (bonus) payments to key enterprise personnel--during the time it takes to complete an investment, even when the project would result in demonstrably more efficient productive methods. However, rules for moving from budget to loan financing have apparently not been worked out, even for the investment categories specified in the October regulations. In December, Finance Minister Garbuzov indicated that use of loan financing was still restricted to designated construction projects.^{26/} Accounts of a scientific conference held jointly by the Investment Bank and the Moscow Institute of Finance, in late February of this year, indicated that loan financing rules were still under discussion.^{27/}

The inability to work out new financing rules may well reflect basic conflict. The interests of planners and industrial managers are frequently opposed; and the system is inclined to inertia and conservatism in the face of unaccustomed change. However, the reform undoubtedly presents numerous operating difficulties. The obstacle to further progress may reflect uncertainty as to how to incorporate the system of materials supply and allocation, which has remained an essential complement to centralized investment planning and administration, with any decentralization of financing decisions. In short, the discussion on the further use of loans to finance centralized investment seems inconclusive, though some general guidelines appear to have been laid down. According to the First Deputy Chairman of the Investment Bank, investment in new industrial enterprises with a pay-off period of up to 5 years will be financed by Investment Bank credits

^{26/} Finansy SSSR, December 1965, pp.13-14.

^{27/} Finansy SSSR, April 1966, pp.92-94.

and internal funds, as specified in financial plans. Investment in reconstruction and modernization of existing enterprises will be financed from a combination of retained profits and depreciation reserves. Budget financing is to be retained for new industrial investment projects with pay-off periods of more than 5 years; and this method may be used for investment in reconstruction only with the approval of the central authorities.^{28/}

Finally, information on investment loan interest rates is at best fragmentary.^{29/} Despite some suggestions that interest rates should be employed for rationing purposes, it still seems to be the case that investment credits carry the nominal, relatively low interest rates that are charged for most types of loans extended by the State Bank--usually, that is, between 1 and 2 per cent.

The second and more interesting reform trend inaugurated by the September 1965 plenum provided for some decentralization of investment financing to the enterprise level, and is intended to increase the share of total investment financed from internal funds. If implemented, the changes hold promise for a significant modification at the operating level of the Soviet economy. In theory at least, the 1965 reform provides a scheme under which the enterprise manager will exercise greater initiative

^{28/} P. Fodshivalenko, "Effektivnost' kapital'nykh vlozhenii i finansovyi kontrol' v stroitel'stvo," Planovoye Khozyaistvo, October 1966, pp.7-8.

^{29/} For example, notices in the official journal of the Ministry of Finance, announcing the extension of new lending authority for certain types of credits for investment purposes, contain no mention of interest rates. See Finansy SSSR, April 1965, page 91, and May 1965, page 92.

in choosing investments, respond to profit incentives to obtain additional investment funds and, consequently, be guided to promote a higher degree of technological development.

The key element in the new system is enterprise profit, and the scheme is therefore an outgrowth of Libermanism, and of experience gained from experiments in the past two years in transferring selected groups of enterprises to a simplified system of plan indicators. A new enterprise statute, approved in October 1965, provided for the creation of three enterprise funds to be formed from enterprise profits: a bonus fund for "material incentives;" a fund to provide social-cultural amenities and workers' housing; and a fund for expanding enterprise production. This third enterprise fund, to be built up partly from profits and partly from depreciation reserves, will provide the decentralized means of investment finance.

As in the case of loan financing arrangements, descriptions in Soviet sources are far from complete, suggesting that many details of the new enterprise fund have not yet been worked out. In part, this may reflect the current phase of experimentation in introducing the new methods to selected groups of enterprises; and it is probably correct to think that implementation of the reforms will be a long and tedious process of trial and error. For example, the published rules indicate considerable variations in the norms specified for the shares of depreciation reserves to be retained in the fund for expanding production, confirming Finance Minister Garbuzov's earlier statement that the regulations might be

differentiated by branch of industry, and even by groups of enterprises.^{30/} This, too, may be indicative of conservative opposition; devising detailed and differentiated regulations can be effective in limiting, or at least slowing, the pace of reform. Because the system is therefore in an interim stage of development, information on the composition and operation of the enterprise fund for increasing production has still to be presented in very general terms. One writer suggests that in 1967 the fund will amount to 4.2 billion rubles, of which retained profits will account for one-third and depreciation reserves for the remainder.^{31/} According to other sources, this compares with 720 million rubles expended out of enterprise funds and bank credits for new technology in 1964, for the purpose of expanding production.^{32/}

In addition to the two types of reform discussed here, mention should be made of the new system of charges on enterprise capital, also adopted in principle at the September 1965 Central Committee plenum. Adoption of these capital charges, a topic of earlier intermittent discussion in the Soviet specialized literature, reflects recognition that capital is a scarce resource. The charges are to be levied as a share of the combined total cost of fixed and working capital of Soviet enterprises and will be

^{30/} It should indeed be noted that the regulations apply to selected enterprises in the industrial branches identified in the official instructions, that were to be converted to the new system this year. The "Methodological Guidelines" are published in Ekonomicheskaya gazeta, 1966, No.6, pp.31-35.

^{31/} R. Vinokur, "Finansy i stimulirovanie rosta proizvoditel'nosti truda," Finansy SSSR, October 1965, page 32.

^{32/} N. Kisman and I. Slavnyi, "Nekotorye voprosy finansov v svete reshenii sentyabr'skovo plenuma," Finansy SSSR, November 1965, page 7. This sum amounted, however, to roughly 5 per cent of total investment in Soviet industry in 1964. See "Fond razvitiya proizvodstva," Voprosy Ekonomiki, August 1966, page 115.

paid into the government budget out of net income of the enterprise. At the present time, discussion in Soviet sources still mirrors a continuing division between those who advocate adoption of a uniform rate and those who favor a differentiated scale of such capital charges.^{33/} Apart from these uncertainties regarding operating details, the connection between the new system of capital charges and investment finance--in the sense discussed earlier in this paper--is far from clear. The capital charges may be one way of establishing more realistic depreciation norms. Enterprise payments of capital charges into the budget constitute an additional source of funds available for investment and other uses, but at least one authority suggests that these payments will gradually come to replace the two existing major types of tax revenue.^{34/} In any event, the discussion is distinctly less specific in relating capital charges to investment incentives or to investment financing, than is the case with respect to loan financing and the use of enterprise funds.

Prospects. The September 1965 decisions marked the culmination of interesting and lively debate, which will undoubtedly continue until workable arrangements can be decided upon. Despite the interim nature of the 1965 reforms, however, some tentative evaluation is clearly called for.

^{33/} Thus, Professor D. Allakhverdyan wants a single rate (see "Finansovoe planirovanie v novykh usloviyakh," Planovoye Khozyaistvo, September 1966, page 47) while Kisman and Slavnyi (loc.cit., page 9), and some other writers, suggest an average range of 3-6 per cent. It is reported that these charges averaged 5-6 per cent of capital cost in 43 enterprises converted to the new system in the first quarter of 1966, where the charges also amounted to 20 per cent of total profits, and about 30 per cent of total payments into the government budget. See P. Krylov, L. Rotshteyn and D. Tsarev, "O poryadke i usloviyakh perekhoda k novoi sisteme," Planovoye Khozyaistvo, April 1966, p.66.

^{34/} Allakhverdyan, loc.cit., pp.47-48.

The problems are, as Grossman suggests, "complex--theoretically, practically, and politically." One can perhaps distinguish degrees or kinds of difficulties, some of which may prove temporary and others that may present more fundamental obstacles. Certainly the notion that investment decisions, except for some limited types, should be dependent upon enterprise profits is entirely novel to the whole working concept of the Soviet system. The hesitation evident in the field of action suggests that reform is not easy to implement. As with food, it is not true that the appetite grows with eating; for it depends after all on the nourishment, with inertia, conservatism and uncertainty in the face of change acting to limit reform to small portions.^{35/} The gradual extension of Libermanism to selected enterprises on an experimental basis in the last two years may have shown good results partly because better-than-average producing units were involved. Reform may prove more difficult as the attempt is made to integrate less efficient enterprises into the system. On the other hand, the importance of such difficulties can be exaggerated. It may be that the Soviet economy will tend toward a system in which different organizational patterns and operating rules will prove to be sensible. Thus, the planners may discover sectors in which reforms can be

^{35/} In his recent comparative study, Garvy shows clearly that the trend toward financial reform is much more advanced in Eastern Europe than in the Soviet Union. See Garvy, *op.cit.*, pp.108-116, *passim*. We cannot go into the reasons for this contrast, but the more "open" character of the Eastern European economies, and the fact that isolation from outside influences was neither total nor greatly prolonged, are probably key elements in any explanation of the difference.

introduced without necessarily impairing planning principles or central control over investment--perhaps along the lines suggested by Nove, who cites the examples of textiles and electric power to illustrate that planning (and central control) may be easier in high priority industries, at least in those with a high degree of product homogeneity, which makes for "plannability."^{36/}

Determined action by the Soviet leadership may be sufficient to overcome inertia, to devise workable operating rules, and to implement the 1965 reforms in some more definite manner than is now the case. But meaningful change in the system of planning and management faces two fundamental obstacles, and real progress is difficult to predict in the absence of some decision on these basic matters.

Perhaps the most important requisite for change is a more realistic system of industrial wholesale prices. The difficulties are formidable, as evidenced by repeated postponement of scheduled price reforms in recent years. The deficiencies of existing prices as guides to planning and to enterprise behavior are widely recognized by Soviet economists, but there is evidently no unanimity of views regarding the structure that should replace the current system, under which wholesale prices are administratively determined by the central authorities, and remain unchanged for relatively long periods. The difficulty is obvious: profit can act to guide enterprise behavior in a rational sense only if prices reflect relative scarcities and lead the manager to choose that combination of inputs that will yield lowest cost operation.

^{36/} Alec Nove, Economic Rationality and Soviet Politics (New York: Frederick A. Praeger, 1964), pp.122-123.

The second difficulty is posed by the system of materials supply and allocation. Most planned tasks, whether relating to current production targets or to investment programs, include provisions for materials supply from centralized organizations; and the reliability of supplies for any task depends to a great extent on the priority position of the particular plan assignment. On the one hand, coordination of supplies and equipment with working schedules has always been extraordinarily complex, which explains the establishment of hierarchies of priority tasks by administrative means. On the other hand, this complexity will make it difficult to implement new financing methods or decentralized investment procedures if centralized materials supply is retained. The suggested solution, to permit direct ties between producing units and supply agencies on a contract basis, would introduce a significant modification in the traditional system, and one which planners may understandably resist because of the implied threat to the retention of much of the familiar apparatus of central planning and administration.

No observer of the Soviet economic scene in the baker's dozen of years since Stalin's death--remembering the air of excitement engendered by earlier wisps of imminent transformation--can regard speculation on likely policy changes as an easy matter. The realist, intent on viewing the Soviet system as an arrangement for the exercise of national power and ideological messianism in every sphere, may argue that there is no compelling reason for the system to change, or to change in any fundamental sense. It would be unrealistic to dismiss this point of view, supported as it is by a great weight of historical evidence. On the other hand, the optimist will

say that it is easy to overestimate practical difficulties, or the influence of ideological commitment in resisting change. He can show evidence that in many ways--and nowhere so visibly as in the economic sphere--practical objections and ideological argument have yielded to necessity in recent years. If some solutions have not been correct, it has been possible to unravel them and begin again. From this experience, one cannot yet conclude that correct alternatives will not be worked out in time by reasonable and dedicated men.