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Soviet Central Planning:

Probing the Limits of the Traditional Model

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Over the last half century the most impressive aspect of the performance of the Soviet economic system has been its ability to resist several concerted efforts to change it. To be sure, there have been a myriad of changes in various aspects of the system; it is not precisely the same system it was fifty years ago. But, as systems go, it is different in no significant way from the "childhood" version of the 1930s.

While there has never been an effort at a truly comprehensive reform of the traditional system of central planning in the Soviet Union, certainly the reforms introduced in 1965 had important elements of such a comprehensive approach. Those reforms had no lasting impact on the system. The partial reforms program of 1973, aimed at streamlining the system which supervised industrial production, led to changes which were ultimately of minor, if any, significance to the functioning of the system. The July 1979 decree was virtually stillborn.

Despite these disappointing results, Soviet leaders talk almost constantly of the necessity of changing the system, and the sources of their dissatisfaction with the system have not changed noticeably over time. This persistent concern about the performance of the system, combined with an apparent inability to construct an effective program to alter the system, has led to what Berliner (1983, p. 350) has called a "routinization" of the process of altering the system. Now, every five or six years, in rough synchronization with the preparation of the next five-year plan, new reforms are introduced. The experiments in the five industrial ministries, introduced in 1984 and scheduled for extension to more ministries in 1985, are preliminary moves

anticipating the next reform package to be introduced, most likely, sometime in 1985 or 1986.

Gertrude Schroeder (1979) has characterized this constant, inconclusive, bickering between the system leaders and the system itself as a "treadmill of reforms." The point is well taken, but incomplete. Western specialists on the Soviet economy share the treadmill with Soviet leaders, and are running just as hard as they to get nowhere. Year after year western analysts of the Soviet economy write of the need to reform the Soviet economic system. Yet most years nothing happens, and in those years when something happens, it turns out to be of no lasting importance.

The two other consistent phenomena of the last two decades have been a secular decline in national income growth rates and an increasingly serious deterioration in important exogenous factors, in particular demographic factors and diminishing returns in resource extractions. It is an unchanged system, combined with a consistent deterioration in macroeconomic performance, which keeps Soviet leaders on the treadmill, and keeps western specialists trotting along with them.

That impressive display of the system's ability to avoid change, even in the face of growing pressure from deteriorating economic performance, raises a logical question. Is there any reason to suppose that the future will not replicate the past? Things have gone on this way for several decades, why not several more decades?

The easiest, but least satisfying, answer to this question is that because of the continued deterioration in economic performance Soviet leaders will eventually be compelled to admit the logic of

comprehensive economic reforms, and change the system. That is reminiscent of Arthur Okun's tongue-in-cheek dictum to economists: "If you must make a forecast, either give a date or give a number, but never give both." Observations about the inevitability of genuine economic reform in the Soviet Union are probably correct, but not terribly illuminating. If western specialists have any grasp whatsoever of the dynamics of this system they should be able to be somewhat more precise than that.

Yet, it is possible that it is asking too much to go beyond that. An intellectually satisfying theory of the evolution of the Soviet economic system would require not only a thorough comprehension of the interactions between economic performance and the economic system, but also a comprehension of the political forces arrayed for and against systemic change, and their interaction. The complete theory of systemic change in the Soviet Union awaits a new Marx to outline the dynamics of this derailed revolution, more closely resembling state capitalism than any form of "socialism" which Marx would have recognized.

Are those of us who study the Soviet economy doomed while awaiting this new Marx to play a part somewhat analagous to that Utopian socialists played in the nineteenth century, outlining a different future for Soviet socialism without any but the vaguest notion of how or when the system might proceed from here to there? Is our vision so blurred, our understanding so poor, that we can do no more?

I honestly do not have a definite answer. My purpose in this paper is to develop a framework for thinking about the future of the system, which is primarily useful for identifying the types of

information we need in order to reach expectations about the future of the Soviet economic system which both say something substantive, and have a date.

The year 2000 is used as a convenient "date." Although the year 2000 sounds far away, fifteen years is not a very long time. If, in 1970, I had been writing this paper, I would most likely have been impressed with the need to fully implement and move beyond the 1965 reforms, in order to forestall a further decline in economic performance which, if it occurred, would have created political problems for Soviet leaders. Now, fifteen years later, it would appear that the point on the link between system stability and performance would have stood the test of time, but the predicted political consequences are nowhere to be seen. It is useful to remember that when peering fifteen years ahead. It is not implausible that in the next fifteen years successive Soviet leaders will continue their efforts to change the system with no notable successes, that economic performance will deteriorate further, but that successive leaderships will somehow manage to contain the political consequences.

On the strength of historical precedent, this is a perfectly reasonable prediction for the next fifteen years. Moving away from this prediction, say to one that foresees substantial system change, should only be done in light of compelling evidence that the future simply cannot replicate the past.

This paper constitutes a search for that evidence. I begin by looking at the past in an effort to understand why this system has remained essentially unchanged despite efforts to change it. I then turn to the future to apply the lessons of the past to the task of

outlining the likely future course of the system. In the end I talk of probabilities, not certainties, and the conclusion I reach is that Soviet leaders are most likely not yet through in their search for the limits of the traditional model, nor does it appear that they have reached those limits.

Terminology

Before proceeding to a discussion of the evolution of the Soviet economic system in the past and the future, it is necessary to be clear about terminology. The basic concepts involve varieties of economic reform, and policy change within an unchanged system. However in both cases there is ample room for confusion, which it is best to try to minimize at the start.¹

The Concept of Economic Reform

Economic reform means a change in a country's economic system, a reformation of the system. Because the term "economic reform" covers a very broad range of phenomena--from reforms in only one part of the system to a massive overhaul of the entire system--it frequently appears with an adjective out front: "radical" reform, "real" reform, "partial" reform, "comprehensive" reform, or "fundamental" reform. It is, in fact, an imprecise term and one must be careful in using it that its meaning is as clear as possible.

That is all the more important because there are many options open to leaders for improving economic performance which involve changing policy without changing the system. A change in investment strategies or policies on technology imports or priorities for the allocation of scarce materials among competing users all may affect economic performance even though the system remains unchanged. Here leaders seek to achieve their goals not by altering the system, but by using it to improve economic performance.

Leaders surely do not envisage their options under artificially simple categories such as "policy changes" and "system changes." They are seeking ways to improve economic performance which are politically acceptable, but which have some effect; and they almost always decide on a combination of measures which fall into both categories. All of the major efforts to improve economic performance in the Soviet Union and Eastern Europe have involved a combination of new policies and some change in the system. Granting that reality is not neatly divided up into these two categories, it is still useful to keep them in mind for reasons which will be discussed below.

A final point about economic reforms which, while obvious, still deserves to be stressed, is that they are not an event, but a series of events. Every reform has a stage of debate, preparation, and (possibly) experimentation, which lasts at least several years. Every reform will have a formal legal decree (the date of which confers the label--for example, the 1965 Reforms), followed by a long implementation stage during which detailed decrees implement the general decree. The implementation stage can stretch out for some years, both by design--as the reforms are set to be phased in gradually--and also as a sign that the opposition is strong enough to successfully engage in delaying tactics. In most reforms the implementation stage shades into a retrenchment phase in which the decrees, as implemented, are reversed, either de jure, or de facto. It is this typical dynamic of reforms which makes the analogy of a "wave" so apt.²

In order to define the various types of reform and policy changes I begin with an "unreformed" system, and then define which systemic changes constitute "radical" reforms, and which do not. For the properties of the unreformed system I begin with Bornstein's (1977, pp. 103-4) list of nine essential characteristics of the traditional Soviet (Stalinist) economic model which I will refer to simply as the traditional model. I have combined the list into four general systems characteristics:

- 1.) The state owns the means of production, and property incomes automatically revert to the state. Individual incomes are essentially limited to wages and salaries.
- 2.) Economic administration is hierarchical with decision-making concentrated at the top of the hierarchy. The production and distribution of goods and services are planned in detail in physical units. Capital formation and utilization are controlled by the center, as are the important labor force variables.
- 3.) Prices, and therefore money, are passive, supporting, rather than influencing, centrally-determined plans for resource allocation.
- 4.) Throughout the system the emphasis is on the fulfillment of quantitative targets.

These four characteristics summarize the unchanged skeleton around which the Soviet economic system has existed for the last half century. They are mutually linked in many complex ways. Passive prices and centralized economic administration reinforce each other. Because prices only reflect costs of domestic production (and not the demand for the product or the potential profits involved in exporting or importing it), central planners must directly control the production and distribution of key goods and services. Enterprises, even if they were inclined and able to make their own decisions on inputs, outputs, and sales cannot be trusted to do so because domestic prices are potentially quite misleading.

Likewise centralized economic administration and the quantitatively-oriented incentive system complement each other. Because the central authorities plan in terms of physical quantities, and the realization of those plans are the responsibility of the ministries, it is necessary to have an incentive system which induces managers and workers to give highest priority to the quantitative portion of their plans. Changing the incentive system (say to encourage firms to produce high quality products; or encouraging them to save on energy and material inputs, even if outputs suffer somewhat) will clash with the remainder of the system unless, simultaneously, the criteria are changed by which ministries are judged.

A "radical" (or "comprehensive") reform of the traditional system alters most of the system's fundamental characteristics (changing the nature and responsibilities of the economic hierarchy, the price system, and the incentive systems of intermediate and primary economic units). The 1965 Reforms were the closest approximation to radical

reforms in the post-war period, but they still fell far short of the mark. A "partial" reform seeks to change only some of the characteristics of the system. The decree on associations in 1973 could be construed as an effort to reform the hierarchy, without in any significant way altering the price system, the incentive system, or the form of ownership.

Because of the logical interconnections among the elements of the traditional system, the presumption should be that unless there is a compelling evidence to the contrary, partial reforms will ultimately fail. An attempt to alter the quantitative orientation of incentives for enterprises without at the same time altering the quantitative targets given to ministries (which flow from the material balance system) is unlikely to succeed as long as ministries retain their considerable influence over enterprise management. An attempt to reduce central control over economic activity without simultaneously increasing the reliance on a flexible price system responsive to supply-demand pressures will lead to distortions in resource allocation which eventually bring about a recentralization, or further reform.

In this paper, the word "reform," without adjectives, simply signifies some change in the system, whether partial or radical. This differs somewhat from the way the Soviet literature, and leaders, now discuss the issue of system change. The word "reform" went out of vogue in the aftermath of the discussions preceding the 1965 Reforms. It would now only be used in the context of a discussion of what in the terminology of this paper would be called "radical" reforms. Instead, now Soviet leaders and most economists discuss the further perfection (dalneishee sovershenstvovanie), improvement (uluchshenie) or

restructuring (perestroika) of the system. In practice these are different words for partial reforms, a point emphasized by the fact that both the leadership and economists who write on the system divide the system into several components: the system of management, which encompasses the economic hierarchy supervising resource allocation; the planning system, which generates the decisions enforced through the hierarchy; and the economic mechanism itself which apparently refers to the role of economic levers (prices, interest rates, incentive systems). Andropov, in the last speech attributed to him in December 1983, mentioned the need to introduce improvements in all three of these areas, bringing them together under the general rubric of the "...complex further perfection of the entire mechanism of management." (Andropov, 1984, p. 5).

Policy Changes vs. Economic Reforms

Economic reforms--partial or radical--are not the only possible measures available for responding to unsatisfactory economic performance. Economic leaders have at their disposal an entire continuum of measures ranging from doing nothing to radical reform. At the "left" end of the continuum, only a little beyond doing nothing, are policy measures designed to use the existing system to change performance. Such measures are constantly being introduced in all socialist countries: new bonus schemes to encourage the introduction of new products, or to stimulate increases in the export of manufactured goods; selective imports of technology intended to accelerate technical change in a particular industry; new rationing schemes for the distribution of scarce materials; and new programs to

develop domestic production of advanced technologies. They are the first resort of the leader who is dissatisfied with some particular aspect of economic performance, and who quite naturally feels that if incremental policy changes can alter things without changing the system, then that is preferable to reforming the system.

Farther toward the right are major policy changes, such as a significant change in the investment's share in GNP, a change in the sectoral structure of investment, or possibly a change in the priorities for investments within sectors. Another measure which fits in the category of major policy changes would seem to be Andropov's discipline and anti-corruption campaign, which was a major effort to improve the operation of the system without changing it.

Policy changes are a constant feature of the Soviet approach to managing the economy, as they should be. Partial reform efforts occur with much less frequency, usually the result of cumulative dissatisfaction with the results of policy changes. Indeed it seems logical to assume, and quite consistent with what is known about the management of the Soviet economy, that leaders will always try to deal with a problem in economic performance first by changing policies, only resorting to reforms when it is clear that policy changes within the existing system will not have a sufficient impact.

It is clearly in this realm of policy change that Soviet leaders have considerable room for maneuver, which if used skillfully, will allow them to minimize the need for economic reforms. To take but one example, consider the problems in the Soviet oil industry in the 1970s. When it became clear in the mid-1970s that the oil industry would have increasing difficulties in meeting output targets, the options included

reforms in that industry, which could have effectively improved its performance with a lag, reforms or policy changes in the rest of the economy to reduce demand for oil, or policy changes in the oil industry designed to increase oil output without significantly altering the system. The latter path was the one chosen in the form of considerable new input diverted from the remainder of the economy to the oil industry, and the results were satisfactory, albeit expensive.³

The many similar examples one could cite suggest a view of Soviet planners in which the norm is "firefighting" through policy changes designed to deal with particular symptoms, interrupted periodically by efforts at partial reform of those parts of the system which are producing some of the "hottest" fires. In predicting the future of the Soviet economic system one must try to balance a healthy respect for Soviet planners' skills as firefighters with a sober analysis of the types of fires they are likely to face in the future, and their ability to deal with those.

Impediments to Reforming the Traditional Model

The evidence of the last two decades of Soviet economic history suggests that there must be formidable barriers to reforms of the traditional model. Three broad categories of impediments seem possible, and each probably plays some role in the final outcome. Soviet leaders themselves are one possible impediment to change in the system. The fact that they have introduced reforms several times in the past, and are about to do so again, does not in any way represent proof that they are committed to the process of reform, in particular to implementing reforms. At the extreme one might hypothesize that Soviet leaders are acting like politicians in many countries, coming up with a program for change in order to foster the appearance of actively seeking to deal with a politically sensitive problem.

A second likely source of impediments to change is the management hierarchy--the state committees, the ministries, and the intermediate authorities under them; and the local party committees. These are the powerful institutions in the traditional model, and reforms could significantly alter the distribution of power among them, or between them and the primary economic units in the system. Their vested interest in the traditional model, and their necessary role in administering any changes to it, constitute an obvious incentive and opportunity for obstructionism.

The third likely source of impediments to changes is the population itself. In the antiseptic language of economists, reforms alter the way in which resources are allocated. But some of those resources are people, accustomed to the benefits and costs of the traditional model. And while workers or managers might, as consumers,

wholeheartedly support the goals of reforms designed to improve the quality, mix, and even quantity of goods supplied for consumption or goods moving in intra-industry transactions, at the same time they will probably seek to avoid the new mix of benefits and costs those same reforms would bring to their personal activities in the work force. The dual character of individuals in society, as consumers and as producers, can result in dual positions on the same reform.

The Leadership as an Impediment to Reform

It is difficult to discuss in any specific way the views of the leadership about economic reforms in the Soviet Union over a period of several decades. The composition of the leadership has changed over time, the collective wisdom in leadership circles concerning what is wrong with the economy and what can be done about it must also have changed, and the problems they are facing have grown more challenging over time. Still there are several generalizations which seem sufficiently broad to encompass the behavior of Soviet leaders in the last several decades.

First, it seems implausible that the few Soviet leaders who have presided over attempts to change the system in the last two decades were, or are, insincere in their professed desire to pursue partial reforms. In each case--1965, 1973, and 1979--the evidence suggests a sincere effort on the part of leaders to construct and introduce reform programs affecting important fundamental elements of the system. While the importance of being seen to act should not be dismissed; it would not appear to have been the main motive. There are two other ways in which the leadership could more plausibly be regarded as an impediment:

through their unwillingness to persist during the implementation of the reform, and through their naivete about the possible efficacy of partial reforms in an interconnected system.

It is difficult for an outsider to follow the implementation of a reform program, not just in the Soviet Union, but in any socialist country. In Hungary, for example, a country in which much more information is available to the outsider than is the case in the Soviet Union, it is still impossible to construct more than a fragmented picture of how vigorously the government and the party are acting to firmly support the principles of a reform during the stage of implementation.

The problem here is what I have called elsewhere the "battle over exceptions." (Hewett, 1981, p. 521). In the discussion of the general principles of a reform, enterprise managers and their ministries may remain silent, or even speak out in support of those principles. But when the actual decrees are issued and new procedures come into affect which tighten up expectations for the performance of individual enterprises and ministries, the pleas for exceptions begin to flow to the center. Many enterprise directors, while supporting the general principles of the reform, argue that in their particular case an exception is justified (usually the continuation of a subsidy). These battles are internal bureaucratic happenings in the halls of the ministries, planning authorities, party headquarters, and the like. They are not, for the most part, reported as such in the press, hence the difficulty for an outsider to follow them. Yet it is precisely these battles which are critical. It is not the eloquence of declared reform principles, but rather the tenacity with which they are defended

in the aftermath of the declaration, which determines the ultimate fate of a reform initiative.

It is in this phase of every reform wave that it is usually compromised, with the tacit approval, or at least the conscious resignation, of political leaders. This apparent unwillingness or inability of leaders to persevere in the implementation phase is presumably one impediment to reforms.

Leaders seem to be culpable in their apparent naivete about their ability to change only part of the traditional model, at the same time maintaining the remaining characteristics of the system. One searches in vain among Soviet leadership speeches on the economic system for a statement even resembling that found in the 1983 "Novosibirsk" paper:⁴

"The fact of the matter is that productive relations represent a complete system, all elements of which are interconnected. That is reflected in their ability to 'reject' experimental introductions into [those relations] of elements of more effective, but qualitatively different, economic relations."

Instead, leadership speeches, and--more importantly--the reform proposals put forth by political leaders have over the years exhibited an almost cavalier disregard for the interconnections in the system.

Historically, one of the most important interconnections which has been inadequately addressed in reform efforts in the Soviet Union has been the distribution of authority and responsibility up and down the economic hierarchy. In the 1965 reforms, the July 1979 decree, and the current experiments, one common thread is the attempt to increase both the autonomy and responsibility of enterprises (or production associations) while leaving essentially unchanged ministerial responsibilities and authority. Yet the center clearly still judges

ministries in terms of the collective performance of their enterprises, including most importantly the output of major products. In that situation the ministry cannot help but interfere in the enterprises' activities. If its formal authority to do so is reduced by strict limits on the number of plan indicators, then it can use numerous informal means to achieve essentially the same goals (including the right to fire managers, control their bonuses, and give or withhold favors). Ministries will refrain from interfering in enterprise activities in the Soviet Union only if and when the center alters the implied success criteria for ministries. That, in turn probably means a discontinuation in the use of the material balance system as it is presently operated, and a similarly dramatic change in the material-technical supply system.

The tension between the price system and the fluctuations in enterprise autonomy is another area in which insufficient attention is given to interconnections. If enterprises are given more autonomy, and incentives are structured in such a way that enterprises will seek to minimize costs while producing goods in demand, then obviously the price system must accurately reflect the relative value to society of various products. Barring that, the enterprise is bound to go wrong, which will call forth corrections from above, which will eventually lead to a constriction of enterprise autonomy.

The leaderships' failure to take interconnections in the traditional system into account seems a fairly clear impediment to the realization of reforms. This does not necessarily mean that in the Soviet Union there are no economists, including those who advise leaders, who understand the interconnections and the need to design

reform programs which respect them. On the contrary there are economists in the Soviet Union who fully understand the problem; but they, like their western counterparts, find it difficult to push a logically coherent reform package through the bureaucratic process--now routinized--which generates reforms programs.

The Management Hierarchy as a Source of Impediments

The management hierarchy is clearly an important source of impediments to reform in the Soviet Union. I define this hierarchy to include the ministries, and their intermediate authorities, the state committees, and the local party organizations (in particular the Obkomy and Gorkomy) who are so deeply involved in the supervision of economic activity by primary economic unitax and local planning authorities.

Each of the three reform efforts since 1965, and the experiments currently underway, have had as a major goal the reduction in arbitrary and frequent external interference by ministries and intermediate authorities in the detailed operations of enterprises. And in each case the ministries have successfully reestablished whatever powers they lost at the time the reforms were introduced. The reductions in obligatory plan indicators for enterprises introduced in 1965 were reversed by the early 1970s, as the ministries reestablished their authority over enterprises. The effort beginning in 1973 to shift some of the decision-making power residing in ministries and enterprises to the production associations was successfully resisted by the ministries from the beginning. To all appearances the final results were little more than a formal unification of various enterprises in production associations.

This reluctance of ministries to give up power in part reflects a natural bureaucratic urge by each ministry to protect, and if possible expand, its authority over economic activity. That urge is surely abetted by the fact that the center has not significantly changed over time the implicit success indicators for ministries. For these two reasons, reforms--as they have historically arisen in the Soviet Union--would appear to be almost unambiguously a threat to ministries. The improved economic performance which might result from successful economic reforms could well show up in improved qualitative, but not quantitative indicators, which would be good for the economy, but of little help for the ministry. Problems in economic performance stemming from difficulties in enterprises working under the new system could be blamed on the ministry. It is, therefore, no surprise that the ministerial system in the Soviet Union is an important impediment to the implementation of reforms.

Local party organs may present similar problems. We know from the seminal work of Hough (1969), and more recent work (see Grossman, 1983) that party organizations at all levels, but particularly the oblast' and city level, play a major role in resource allocation decisions. First secretaries at this level are judged by economic performance in their area. Inevitably they are drawn into solving procurement problems, lobbying for investments for particular firms and enterprises, supervising enterprises in trouble, or pushing for the fulfillment of key plan indicators at important enterprises. Local party organs are so deeply involved in the administration of the economy that national party leaders are concerned that they are neglecting political work, a concern reflected in General Secretary

Konstantin U. Chernenko's repeated calls for party officials to involve themselves less in the day-to-day economic affairs of enterprises in their area, leaving those activities to the local governmental authorities (the gorispolkomy and obispolkomy).⁵

Reforms which seek to enhance the autonomy of enterprises must inevitably affect the rights of party organizations to intervene in local affairs. From the local party organizations' point of view the problems are similar to those faced by ministries. If the first secretaries of the obkomy and gorkomy are to be judged after a reform by precisely the same performance criteria as before, then they have no incentive to leave things alone and see how it goes. In addition there is good reason to believe that after years of deep involvement in enterprise affairs, party committees will find it difficult to convince themselves that it is wise to allow enterprises to operate without supervision.

All of this suggests that party committees are also a potential source of impediments to the implementation of economic reforms. However there is very little evidence on that one way or the other. Unlike the ministries, where there have been obvious cases of resistance to reform efforts, I know of no major case in which party committees have been accused of impeding the implementation of a reform program. That may simply reflect my ignorance of the right literature, but for now I leave the party committees in the category of simply a suspect.

The Population as an Impediment to Reforms

The Soviet population at large may be one of the most important sources of impediments to economic reforms, although to document that would be virtually impossible because there is very little evidence on the matter. The issue here is not so much partial reforms directed at a particular sector, or a particular characteristic of the system-- although opposition from the population can arise there; rather the issue is of much more interest in the case of radical reforms. We are talking here of impediments to even introducing such reforms, let alone implementing them.

There are only two broad groups of individuals in the Soviet Union who might feel a priori that they would unambiguously benefit from the introduction of a radical reform: the very young and the very old, both because they are primarily consumers, and not part of the active labor force. For the rest, the majority, of the population radical economic reforms are in each case a mixture of benefits and costs, with varying degrees of uncertainty attached to them.

For those who are in the labor force, the benefits are probably clearest for them in their role as consumers. They could legitimately expect that the quality, quantity, and assortment of consumer goods would improve dramatically. Nevertheless even here there would be significant uncertainty on the price side, for a radical reform would mean a price system in which relative prices would change significantly at first, and frequently thereafter. Consequently consumers in the reformed system would trade uncertainty in consumer goods supplies for uncertainty in the price of a more certain flow of goods. Either way they face uncertainty on their real incomes, but under the reformed

system they might find that uncertainty somewhat more unsettling.⁶

But it is the consumer as a member of the labor force who would find his life revolutionized in a reformed system. Consider the worker first. Under the traditional system he has a guaranteed job, and can easily find another should he or his employer grow dissatisfied with the current situation. His income is predictable, very closely related to his profession, and very loosely related to his performance at work. Under the reformed system the demand for labor in the country as a whole would probably drop; and the wage spread among individuals within factories, and between factories, would dramatically increase. Workers in general would find conditions on the job more demanding. If they could not respond to those tougher conditions, they might find themselves with considerably lower earnings, and in the extreme case without a job. Any General Secretary who chooses to implement a reform which actually gives enterprise directors the right to hire and fire workers, and the right to freely set their wages relating to performance, will find it very tough to sell workers on the idea.

Factory managers would also in many cases have serious concerns about the consequences for them and their factory of a reform. Factories in the USSR face uncertainty in procuring productive inputs, and in the constantly changing plans they receive from above, which have both become the hallmarks of the traditional model. Managers do not like those uncertainties: they complain about them incessantly and the leadership has on several occasions sought to deal with them in the course of introducing a reform program (most recently in the current experiments). A radical reform would remove much of the uncertainty in those two areas. Ministries would lose their authority to control

enterprise economic activities in any detail, so the uncertainty of frequent and sometimes arbitrary changes in plans would be gone. Inputs might still be difficult to procure, but an active price system would reduce shortages more quickly and efficiently than Gosplan and Gossnab ever could.

It is the new uncertainty brought about by the radical reforms which would, a priori, be of concern to enterprise managers. Under a reformed system, the success of an enterprise, and possibly even its survival in its current form, would depend on a market evaluation of enterprise activities. It would no longer be a matter of satisfying a relatively small group of administrative superiors and party officials, all of whose addresses and phone numbers are in the manager's card file (if not his head). Rather it would now be a matter of satisfying thousands of customers, involving totally different approaches than the enterprise was accustomed to using. In the traditional system the plan indicators and the implicit preference of supervising authorities formed the objective function on which the manager kept his eye, all of which were only loosely linked to product quality and genuine customer satisfaction. In the new system product quality and fickle markets would be the sole determinant of success or failure.

I do not know how many factory manager and workers, if given the opportunity, would vote in favor of a radical economic reform in the Soviet Union, and obviously that opportunity is not imminent. But common sense, and the experience of Hungary, suggests that while it might be possible to introduce a radical reform, it would prove devilishly difficult to implement. Every factory manager would set to work on an elaborate justification for special treatment for his

factory and his labor force. His gorkom or obkom first secretary would enthusiastically support him. And the arguments would frequently be compelling. As Egon Neuberger (1968) reminded us some years ago, the legacies of traditional central planning are indeed formidable, including many enterprises full of human capital which would prove useless in a market economy without retraining, and physical capital which should be scrapped. The transition to a reformed system would raise difficult dilemmas for the leadership in choosing between equity and efficiency. In this situation the political leaders would be hard pressed to stick to the reform program; indeed it might be the height of folly to do so.

Political Considerations Against Economic Reform

These impediments to economic reform add up to a considerable political case against any radical reform and many possible partial reforms. Soviet socialism has at its core, in doctrine and in fact, extraordinary job security, the appearance of price stability (which is not too far from the truth) and a relatively equalitarian income distribution--at least in ruble terms. Partial reforms which might affect one or another of these three fundamental system features would change the character of socialism for the population in ways which could undermine whatever support the Party has. A price reform which dramatically altered relative prices would create uncertainty about individual real incomes. A reform in the wage system in the direction of increased inequality linked to variations in individual work performances would be perceived virtually as a revolutionary change from the system now in place.

A radical reform would simultaneously threaten job security, price stability, and the income distribution, particularly during the early transition stage. As Berliner (1983, p. 372) notes the transition to a radical model would create enormous economic rents which some firms and individuals could capture, along with the concomitant large incomes. Such disparities in income and wealth would be a political shock to a society which has grown used to relatively flat income and wealth distributions. Simultaneously with increased uncertainty about the size of their incomes, the population would also wonder about the security of their current jobs, and the prices they would be facing on consumer markets. Radical reform would, for the population, be tantamount to a revolution, in this case a revolution from above.

It is possible that political leaders, if they carefully plot their strategy can sort out ahead of time the groups who will be most opposed to the reform, and the issues which are likely to be the most controversial, and diffuse both of them. This was surely one of the most interesting points of the Novosibirsk paper, in which the author, in discussing the proper strategy for restructuring the economic system, cautions her readers that successful reform (she calls it restructuring the system) "...is possible only on the basis of using a thought-out social strategy, which simultaneously activates the participation of the groups interested in changing the current productive relations, and blocking the actions of groups capable of interfering with those changes." (RFE-RL, 1983, p. 18).

But there are limits to how much political "neutralizing" of reforms is possible without altering the fundamental character of the reform program. A reform which seeks to "harden" the budget constraint

for enterprises, but is implemented with so many exceptions that in fact the enterprise with the hard budget constraint is the true exception, may be politically popular. But its popularity comes at the cost of the reform itself; it becomes yet another formalistic, but essentially empty, alternation in the system. To make a radical reform politically palatable in the Soviet Union would probably destroy it, which is the reason it seems so unlikely that a radical reform will soon be introduced into that system.

The Impetus to Do Something

Juxtaposed with the political considerations which ultimately impede the introduction and implementation of reforms in the Soviet Union are the strong political considerations which argue for doing something. The dissatisfaction Soviet leaders have with Soviet economic performance stems from a long list of problems which have characterized Soviet economic performance over the last quarter century: a secular decline in national income growth rates; the chronic tendency of enterprises to ignore customers' needs, and to be concerned only with the center's "needs"; low-quality, outmoded manufactured commodities; the willingness of enterprises to accept very high production costs in the process of fulfilling output plans; the tendency towards autarky in mid-level portions of the hierarchy (departmentalism, regionalism); low rates of technical change; low labor productivity; and chronic problems in the supply of critical consumer goods (housing, food). Those familiar with the debates of the 1960s, who are also following the debates of the 1980s, will be struck by the relatively close correspondence between the basic themes in both periods.

However, the underlying issues have changed somewhat in the years since the debate leading up to the Kosygin reforms. In the first half of the 1960s GNP growth rates were averaging 5 percent per annum; in the early 1980s the average was roughly 2 percent.⁷ This is consistent with trends in the rest of the developed world.⁸ Nevertheless it is worrisome to a leadership which has openly set itself a task of surpassing, rather than mimicking, the performance of western economies.

The economy is at a significantly higher stage of development now than it was a quarter of a century ago. Per capita GNP in 1980 was 1.8 times larger than in 1960; per capita consumption was 1.6 times larger. (U.S. JEC, 1982, pp. 72-3). The entire system is far more complex than it was at the beginning of the 1960s. Products are more numerous and more sophisticated now than they were several decades ago. As a consequence it is increasingly difficult to effectively control production through the traditional Soviet model. The population is better educated, and more sophisticated (as workers, and as consumers) than it was then.

For these reasons some of the old problems may seem more urgent to Soviet political leaders now than in the past, and some new problems are emerging. During his brief tenure in office Andropov devoted substantial attention to the economy. In the process he provided a valuable glimpse at the Politburo's views on the nature of Soviet economic problems. His first major policy speech after Brezhnev's death began with, and devoted considerable time to, a detailed discussion of economic problems. It is in that speech that he invited a full-scale debate on the economy (Andropov 1982a):

"In general, comrades, there are many pressing problems in the economy. I have, to be sure, no prepared prescriptions for their resolution. But it falls to all of us--the Central Committee of the Party--to find answers.

"I wish to emphasize that these questions are of the highest order and of vital importance for the country. By deciding them successfully, the economy will continue to advance, and the welfare of the population will increase."

In Andropov's subsequent speeches, and in the debate on the economic system which developed in 1983, several aspects of economic performance

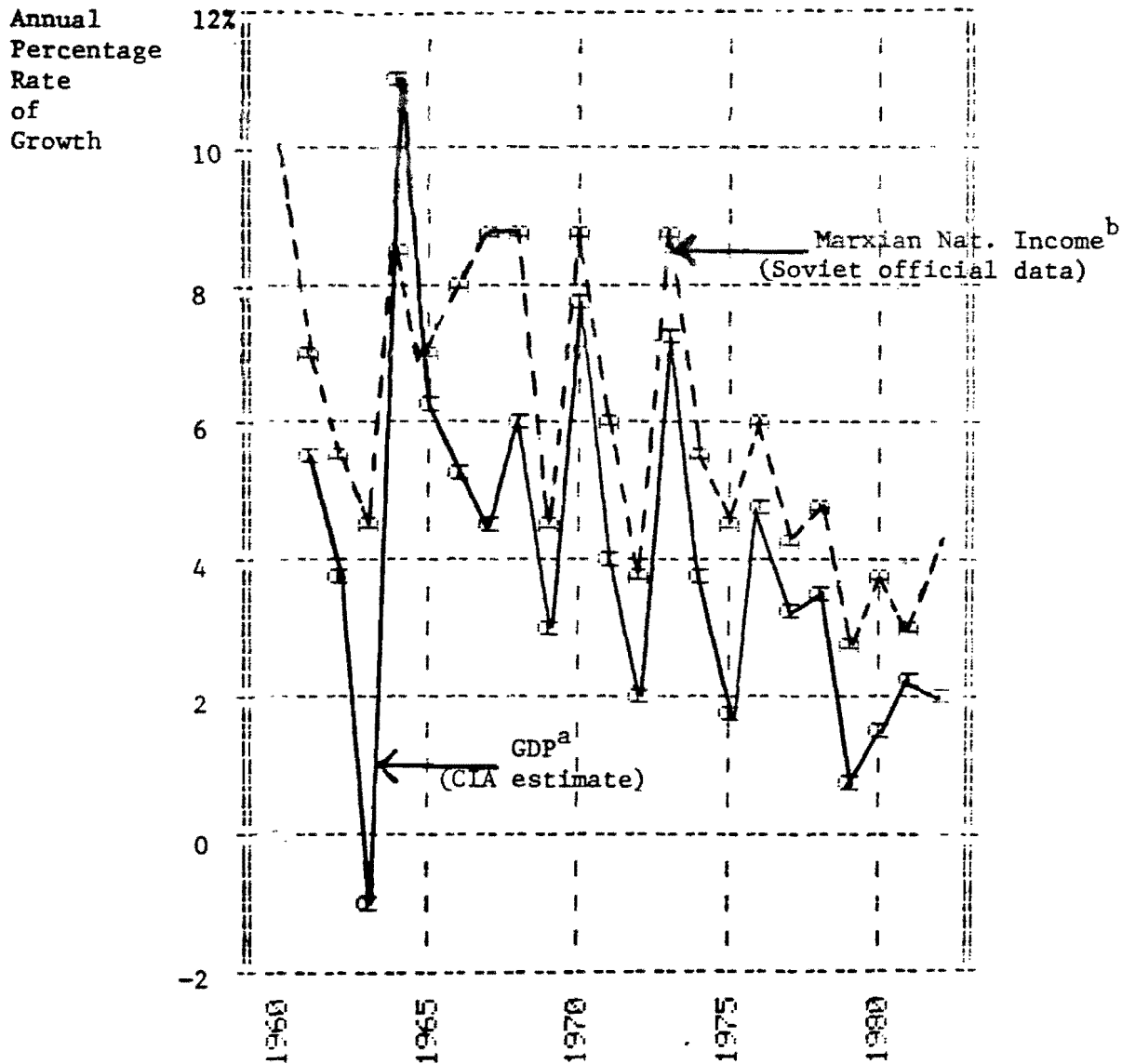
clearly emerged as sources of concern to the leadership, and to the majority of economists, whatever their position might be on reforms of the economic system.

Falling National Income Growth Rates.

This is a long-standing theme in the list of problems with the Soviet economy, and one can understand why from the summary of growth rate trends in Chart 1. Two data series are shown here: the CIA's estimate of Soviet GDP growth rates, weighted by estimates of 1970 factor cost; and the official Soviet data on the growth of produced national income. Both series show an unmistakable secular decline in national income growth rates. CIA estimates of the growth rates are always lower (which probably has to do with more than the exclusion of services from the Soviet data), and sometimes differ significantly in the year-to-year trends they depict (particularly in the latter half of the 1960s). But in general the two data sets are in agreement that there has been a secular decline in Soviet national income growth rates, with a very sharp dip in the 1979-81 period.

Soviet leaders most frequently discuss their concern about falling growth rates in terms of falling rates of growth of labor productivity. In their minds there seems to be a distinction between falling national income growth rates and falling growth rates for labor productivity. But in fact when an economy is at full employment fluctuations in national income and in labor productivity are the same thing.

National Income Growth Rates in the USSR:1960-1982



Notes:

^aCIA estimates of Soviet GDP growth rates, where GDP is valued at estimated factor cost. CIA, Handbook of Economic Statistics, various years.

^bSoviet official data on the growth rate of Marxian national income, which is value added in the production of material goods and services in support of material goods production, less depreciation. USSR, Central Statistical Office, Narodnoe khoziastvo SSSR : statisticheskiy ezhegodnik (Economy of the USSR: Statistical Yearbook), various years.

Whether one talks of national income growth rates or growth rates of labor productivity, the underlying concern of the leadership is that increases in the efficiency with which productive factors are used in the system are currently insufficient to generate the growth rates they--as politicians--are striving to achieve in order to meet important needs in defense, consumption and investment.

Macroeconomic Imbalances.

Although Soviet economists do not typically think in terms of aggregate demand and supply, it is useful to consider a number of the concerns they voice about the economy in terms of a perceived imbalance between the major components of aggregate demand and the commodity supplies available to satisfy those demands. The most visible concern here relates to a perceived imbalance between consumer incomes and the supply of consumer goods and services. These issues were discussed frequently during the later years of the Brezhnev period, and they were a major theme during Andropov's short tenure.

The general concern here is that somehow enterprises usually find a way to fulfill or overfulfill the planned level for wage funds, even though they frequently underfulfill output plans. In the aggregate this leads to a split between factor incomes and the value of products generated with those incomes. In the consumer goods sector in particular it is the conventional wisdom in the Soviet Union (difficult for an outsider to verify) that the incomes consumers would like to spend (in the terminology of the disequilibrium macro models, "notional" demand) considerably exceeds the supply of consumer goods. This leads to inflationary pressures to which retail prices do not

respond, which implies either involuntary savings or purchases of less-preferred goods.

Andropov was quite frank in his discussion of this issue, telling the workers at the Sergo Ordzhonikidze Machine building factory in Moscow during his unannounced visit there in February 1983 that "miracles, as they say, do not happen in the world. You yourselves understand that the state can provide commodities equal only to those produced." (Andropov, 1983b, p. 3). What has worried the leadership for some time (under Brezhnev, Andropov and Chernenko) is that because workers are increasingly aware of the fact that the incomes they receive will be difficult to convert into goods, the incentives to work harder in order to earn bonuses are deteriorating.

The disjuncture between the aggregate demand for investment goods and the capabilities of the construction and machinebuilding industries may be even a more serious symptom of macroeconomic imbalances. Andropov did not talk as much about this issue as he did about the problem in consumption, but it has been a problem of considerable concern for a long time.

Enterprises and ministries have, to use Janos Kornai's (1981) phrase, a virtually insatiable "investment hunger" which reflects the total security they enjoy on a protected domestic market overseen by a very forgiving government hierarchy. It falls to Gosplan to curb that hunger by choosing among the far too ambitious list of project proposals which percolate up from the ministries. In 1982, to give but one example, the ministries and other departments proposed 2000 projects with a budgeted value of at least R3 million each. Gosplan's departments for the various sectors cut that to 600; a final review

reduced it to 385 projects. (Baryshnikov and Galakhov, 1982, p. 26).

But that is only the first chapter of the story. Ministries and enterprises--veterans of this game with the center--have learned over the years to submit project proposals which significantly underestimate what they know will be the final cost of the project. After the project is accepted, they gradually raise the estimated cost to what they knew all along it would be. During FYPX, when capital expenditures on projects in process rose about 1 percent per annum, their estimated costs were rising 6.9 percent per annum, which simply means that gestation periods were lengthening as the total cost of projects was revealed to the center (Kirichenko, 1982, p. 63). As a result the excess demand for investment goods appears in the system as a dispersion of the resources of the construction industries among an excessively large number of projects. This creates a strong sellers' market for construction services, machinery and equipment, and construction materials, all of which undermines measures designed to encourage those in charge of investment projects to increase pressure on contractors to finish projects on time.

Finally, it is probably the case--although it cannot be documented--that the defense sector is constantly putting demands on the economy which exacerbate disequilibria in markets for investment and consumer goods. In effect defense is part of the general excess demand for national product, but because of its high priority the "notional" demands of the defense establishment are met, and the civilian sectors are left to bear most of the burden of the disequilibrium.

One would think, in the abstract, that the traditional Soviet model would at least allow the center to exercise tight control over aggregate consumer incomes and aggregate investment expenditures. In fact this is a system in which the center has only partial control over total wage payments, and only very weak control over the investment process. This fundamental weakness of the center in controlling aggregate demand, may reflect a general characteristic of the traditional Soviet model, wherever it is applied.⁹

Microeconomic Imbalances

Consumer goods

Microeconomic imbalances in the supply of consumer goods have existed in the Soviet economy for all of its history. Two broad areas of particular concern to the leadership for obvious political reasons are food and housing. Both are highly visible and important components of living standards; and in both cases there are chronic problems. In the case of food, Brezhnev, Andropov, and Chernenko have all expressed forcefully a perception that it is politically and economically important to improve the performance of the agricultural sector and the industries which produce food products. This is the purpose of the Food Program introduced in 1982 under Brezhnev, whose implementation (under Gorbachev's leadership) has received high priority under Andropov and Chernenko.¹⁰

The chronic housing shortage is an area of constant concern to Soviet leaders; in fact it is the only area in which Soviet leaders (Andropov and Chernenko for example) openly talk of a "problem." It is a problem which will only be resolved through commitments of new

resources, and innovative approaches, both of which are obviously under consideration by current leaders. Andropov (1983c, p. 4) suggested that in solving the housing problem one tact might be to distribute new housing on the basis of workers' performance. Chernenko obviously regards housing as one of the most important problems facing the leadership, to which he is apparently willing to respond not only with more resources, but also with some rather startling ideas by Soviet standards, (Chernenko, 1984c, p. 4):

".../T/he housing problem is far from solved, and we will seek new ways to improve living conditions. This will involve not only the means of the state. Possibly it will be necessary to move more boldly in also expanding cooperative and individual bases of construction. (Applause)"

In addition to these large, and obvious areas of concern, there are more general problems with a wide range of consumer goods and services produced in quantities or qualities insufficient to meet consumer demands. Enterprises are producing goods which allow them to fulfill the output (now sales) plan with minimum pain, irrespective of their customers needs. Many goods produced are of such poor quality, or are otherwise so unsuitable, that the trade organizations or consumers reject them. Andropov (1984, p. 4) noted, for example, that of consumer goods intended for sale in 1984, trade organizations rejected 500,000 televisions, 115,000 radios, 250,000 cameras, 500,000 watches, and 60,000 refrigerators. Some of these amounts are surprisingly large relative to 1983 output (presumably the relevant year for comparison), representing 5.8 percent of television production, 1.2 percent for radios, 6.2 percent for cameras, .7 percent for watches, and 1.1 percent for refrigerators.¹¹ And it is likely that

a significant proportion of the goods trade organizations do accept are either rejected by, or far from satisfactory for, consumers. At the same time, high quality consumer goods are in quite short supply, and that, combined with the general excess demand for consumer goods, provides fertile ground for speculators.¹²

Aside from the general disequilibrium in consumer goods markets, the fact that many of the goods produced are unacceptable to consumers is yet another factor undermining the influence of ruble bonuses offered to workers in exchange for a greater quantity or quality of work effort. Although numerous measures have been introduced to improve the quality and quantity of consumer goods, it is clear that there are no quick fixes. And as Soviet consumers grow more sophisticated, so do their quality demands, a point about which the current leadership is well aware.¹³

There is a circular relationship here which complicates matters. One of the reasons for inadequate consumer goods supplies is poor incentives for workers to work harder and better than they do now. Yet the difficulty with improving incentives for workers is that the deficits on consumer goods markets weaken the effectiveness of financial bonuses as an incentive to work harder. Possibly it was the difficulty of this problem which led Andropov to indicate that it would be sensible to link the distribution of apartments--the most obvious example of a consumer good in short supply--to how a person works at his or her job (Andropov, 1983c, p. 4).

Material Inputs and Intermediate Products

Intra-enterprise economic relations are also characterized by widespread imbalances, and these have probably grown more severe since the mid 1970s. There are the well-known problems with shortages of steel; shortages of some forms of energy; and many bottlenecks in transport, especially railroads. There is a general shortage of labor. All of these shortages seem to lead to a considerable, and growing amount of unused industrial capacity (Rumer, 1982; Andropov, 1984).

Unlike the microeconomic disequilibria in the consumer goods market, there seems to be a consensus among Soviet economists, and the leadership, that the problem here is more on the demand than the supply side. As R.S. Belousov (of the Central Committee's Academy of the Social Sciences) noted at a recent debate on the economic system, the problem is not insufficient production of metal, coal, gas, and so on. The problem "...first of all, is the low efficiency in the utilization of those resources, which is manifested in the very high norms for expenditures on final production..."¹⁴

Excessively High Input Demands.

In part this phenomenon is considered a major source of microeconomic imbalances. Enterprises' well-known propensity to hoard labor has led to labor shortages, which in turn lead to new factories operating at under full capacity due to insufficient labor supplies. This is an economy which produces and uses an extraordinary amount of steel per dollar of GNP, which leads one to suspect that it is high demands for steel rather than inadequate steel supplies which explain recent shortages in that sector.

Nevertheless the high demand for inputs is also an issue in its own right. The problem which has increasingly come to concern Soviet leaders is that even in areas in which there are no current shortages, the investment requirements associated with maintaining, and in many cases increasing, supplies of raw materials and energy, are growing much more rapidly than total investment resources available for the economy. That constrains investment in other sectors, and ultimately constrains the growth of per capita consumption.

The energy sector provides an excellent example here as a major, although not the only, source of concern to the leadership. During 1976-80, in comparison to 1971-75, investment in the economy rose by 29 percent, while investments for fuels rose 47%; and investment expenditures on oil and gas pipeline construction rose 135%. Energy production rose at 4.2 percent per annum during 1976-80, down from 5 percent per annum in 1971-75 (Hewett, 1984, Table IV.8).

For 1981-85, when total investments are planned to grow at a rate one third of that for 1976-80 (10% in 1981-85 relative to 1976-80), investments in industry are to rise 23 percent, and investments in fuels are to rise 66 percent. Investments in pipelines are to rise 43 percent relative to 1976-80. Total investment in the "fuel-energy complex" (fuel production, its transformation to energy, its transport, and some supporting investment) is planned to be R132 billion in 1981-85, which accounts for 18.9 percent of all investment in the economy, and represents an increase of 50 percent over investments in the complex in 1976-80. In absolute terms the increment to investments in the fuel-energy complex during 1981-85, relative to 1976-80, accounts for 2/3s of the planned increment to all investment between

those two periods. Simultaneously planners hope for (but will not achieve) an average annual growth rate in primary energy production of 2.3 percent per annum, a little over half of the growth rate achieved in 1976-80 (Hewett, 1984b, pp. 170-71 and 176).

These are disturbing trends for the leadership. Energy production growth rates are falling rapidly despite very generous investments. Meanwhile investments in other sectors (including presumably parts of industry) are growing very slowly; and in some sectors investments must be falling (schools, roads, housing, service establishments are all likely candidates).

Similar trends are appearing in other sectors supplying the system with the raw materials. The general problem is that for all primary products and fuels, increasing investments are necessary simply to maintain output as the quality of mineral and fuel deposits falls, and as their distance from the center of industrial activity rises. And the "front-end" investment costs associated with sustaining or increasing output of those goods is probably rising even more rapidly than total marginal cost, an important point for a country which accepts no direct foreign investment, and which makes light use of world capital markets. It is for this reason that the excessively high demands for inputs have become a major concern of the leadership.

Low Rates of Technical Innovation.

In the traditional Soviet model enterprises have little incentive to introduce new innovations, either in the production processes they utilize, or in the products they produce (the two are frequently inseparable). In an economy where the growth rates of both the labor

force and the capital stock are falling, it is only through technical change that national income growth rates can be sustained at historical levels. Furthermore many of the microeconomic imbalances are in reality excess supplies of low quality goods, alongside excess demands for higher quality goods, and technical change is the major means by which that problem will be resolved.

These five problem areas represent the major ways in which the performance of the economy has been a disappointment to Soviet leaders. They are interconnected: slow growth is explained by the existence of the other four factors; and each of those last four factors serves as one explanation for the existence of the other three.

It is tempting to summarize the concerns of the Soviet leadership by collapsing all of them into a concern about growth rates (whether of national income or labor productivity); however that would be an oversimplification. Two other themes emerge frequently in discussion of concerns over economic performance. First there is the chronic tendency of Soviet enterprises to produce manufactured goods which are not only way below quality norms established by manufacturers in western countries, but even way below the minimal standards of potential Soviet purchasers of the products. If the Soviet economy could achieve a perceptible increase in the quality of manufactured goods output, even without any change in the output growth rates, Soviet leaders would probably consider that an improvement in economic

performance. If the quality improvements came in consumer goods, then consumer satisfaction would rise, an important political consideration. And quality improvements in goods produced for industrial use would aid technical progress, and therefore support further quality improvement, as well--possibly--as increases in manufactured goods exports. These latter developments should eventually influence growth rates, but that would not occur immediately.

Second there is the much broader issue, which lies underneath several of the concerns listed above, that in the traditional Soviet model the attempt to centrally monitor and control much of economic activity can result in the absence of the effective control over the variables of most importance to planners. It is rather extraordinary that in a western economy with a well-coordinated fiscal and monetary policy, the resulting control over the level of investment is probably far more effective than it is in the centrally planned economy in which planners attempt--and fail--to control every single investment project. If Soviet leaders could enhance their control over the system--even without immediately achieving an increase in growth rates--they would surely regard that as an improvement in the performance of the system.

The System and Economic Performance Problems

The performance of any economy is the outcome of interaction among exogenous, systemic and policy factors. It is important in analyzing the performance problems discussed above to try to sort out which factors might play the most prominent role in which problems, and for two reasons. Falling growth rates in the Soviet Union certainly reflect in part the natural effects of diminishing returns and a

population growth slowdown which might have occurred no matter what type of economic system was allocating resources in that country. If exogenous factors are the major reason for the growth slowdown, then reforms offer no quick panacea, although they might be able to moderate the rate of decline.

Furthermore, if, say, insufficient investment allocations are an important contributor to the housing problem, then that is a matter which a policy change could handle, without any reforms. That is not to say that reforms in the construction industry would not also improve matters, but they are not the only way in which leaders could improve performance.

In order to think as carefully as possible about the evolution of the economic system over the rest of this century, and the options Soviet leaders have, it is useful to at least try to form an impression of the relative importance of systemic, policy, and exogenous factors in each of the five economic performance problems outlined above. Any rigorous treatment of this issue would require a separate paper; and this is only intended to sketch the broad outlines of what the answer might look like.

Declining Growth Rate

Exogenous factors obviously played a major role in the decline in growth rates. The rapidly increasing factor costs associated with extractive industries in themselves must explain a significant proportion of the fall in factor productivity in the Soviet Union in the last two decades. Falling population growth rates, and the fact that a significant proportion of additions to the labor force are

concentrated in areas with relatively little industry and infrastructure, also were a factor.

Not all exogenous forces were pushing growth rates downward. Most notably the windfall gains of the 1970s allowed the Soviet Union to import machinery, equipment and food worth several tens of billions of dollars gratis, without having to export a single ruble's worth of national income.¹⁵ That in itself must have had some positive effect on growth rates. These exogenous factors aside, a good case can be made for the significant contribution of the system and economic policy to the slowdown in economic growth, resulting from the way they have dealt with deteriorating exogenous factors.

The system could be indirectly acting to depress growth rates in several ways. Most importantly, because this system exerts virtually no pressure on enterprises to economize on inputs, the growth of economic activity in the Soviet Union has been associated with a higher growth rate in the demand for, and therefore the production of, raw materials and fuels. This is obviously the case with fuels. In 1980 the Soviet Union consumed 2.5 times the amount of energy per dollar of GNP as was consumed in the European Community. Its energy/GNP elasticity stayed well above unity in the 1970s when western countries were showing elasticities well below one-half. (Hewett, 1984b, Chapter III). It can surely also be documented for key raw materials and semifabricates. It is no longer a source of pride to the Soviet leadership that the Soviet Union is the largest producer of steel in the world, and rightly so.

This tendency toward excess consumption of key raw materials and fuels has accelerated the shift eastward in the production of those commodities, which in turn has accelerated the rate at which returns have diminished in extractive industries. That is certainly a contributing factor to the growth rate slowdown.

A second way in which the system may contribute to the growth rate slowdown is through the link between consumer goods supplies and labor productivity. Since the second half of the 1970s the Soviet leadership has shown a consistent concern that inadequate consumer goods supplies were partly responsible for the low and falling growth rates of labor productivity. To the extent that is true, these particular microeconomic imbalances may be contributing to the growth rate slowdown, although to substantiate that, one would have to show that the shortages had grown worse in the last decade and a half (likely, because of the growing sophistication of consumers), or that workers had become more attuned to the problem of converting their wages to goods (unlikely).

Other microeconomic imbalances may also have contributed to the growth rate slowdown, particularly in the late 1970s. Bottlenecks in transportation, steel, and energy supplies are all likely candidates for causes of the growth slowdown in the second half of the 1970s, and all are reflections of problems in the system.

The contributions of policy to the growth rate slowdown are less easy to trace, but no less real. The policy emphasizing investment in energy has diverted investment from other sectors where capital productivity was far more favorable, and would probably have contributed to a more rapid growth of GNP (not only because of

differences in capital productivity, but also because of longer lags in the energy sector). Even with the system and exogenous factors constant, this investment policy is itself contributing to the slowdown in growth.¹⁶

There are many other ways in which policy decisions may have had an effect on growth rates. In fact most major policy decisions by Soviet leaders should have some growth rate implications. But the point has been made, and I will not pursue it further here.

Macroeconomic Imbalances

Where there are macroeconomic imbalances, system and policy seem to share the credit. It is surely the fault of the system that enterprises feel unconstrained in their demands for new capital. Considerably harder budget constraints, which could only come through economic reforms, are the logical panacea here. The same is true of the excess demand for consumer goods. Enterprises, again because of soft budget constraints, are perfectly happy to pay workers whether or not their products are salable.

It is important, nevertheless, to keep in mind the possible role of policy here. The decision by Soviet leaders to give defense industries a very high priority and heavy industry the next highest priority has in itself, independently of problems generated by the system, contributed to macroeconomic imbalances in consumer goods production. And the mismatch between nominal wages and available consumer goods supplies in part reflects a primarily political decision by Soviet leaders that nominal wages must constantly rise.

Microeconomic Imbalances

Here, also, system and policy both play a role. The system is primarily responsible for the low quality of many consumer goods and services. Aside from the charitable inclinations of selected enterprise directors, there is no reason to expect enterprises in this system to be overly concerned about satisfying their customers. The same applies to the quantity of consumer goods, and the mix.

Still, policy considerations are potentially important here also. Low quality consumer goods may in part reflect the low priority for light industry in materials acquisition, the relatively low wages paid--as a matter of policy--to workers in light industry, and the scarcity of capital needed for innovation in processes and products. Clearly in an area such as housing, where there is direct competition between resources devoted to housing and resources devoted to other investment projects, the policy on dividing those resources is an important determinant of the final outcome, regardless of the nature of the system.

High Demand for Inputs and Low Rate of Technical Change

Here the system would seem to be the major, almost the sole, source of the problem. In the case of input demands it is primarily the soft budget constraints for the enterprise which permits (even encourages) it to pay scant attention to the costs of production. The excessive use of steel, of other raw materials, and of energy are among the hallmarks of the traditional model, and a direct result of the incentives imbedded in the core of the model.

Low rates of technical change are likewise directly attributable to the system. This is a system which discourages innovation, not as a matter of policy (on the contrary), but as an outcome of the system itself. "Why are the achievements of science and technology introduced into production at an unsatisfactory rate?" asked Andropov. Because "...first of all ...our work directed at improving and restructuring of the economic mechanism, forms and methods of management, lagged behind the demands inherent in the achieved level of material-technical, social, and spiritual development of Soviet society." (Andropov, 1983b, p. 13).

The Soviet Economic System at the End of the Century

Can the next fifteen years be a replay of the last fifteen? Is it possible that in the year 2000 the Soviet economic system will, in its essentials, resemble today's system? And if that is the case, how will the system be performing in the problem areas discussed above?

The exogenous variables with a major role in determining Soviet economic performance are likely to deteriorate for the rest of this century relative to the preceding several decades. Labor force growth rates will continue to fall. The costs of raw materials and fuels extraction will continue to rise. What will happen to Soviet terms of trade is difficult to predict, but a prudent Soviet planner would not count on terms of trade in the rest of this century any better than the Soviet Union had in the 1970s.

The international political environment would also seem to be deteriorating, at least in the ways of importance to the Soviet economy. Another round of the arms race--very likely even if U.S.-Soviet relations improve--means continued high demands on the economy to support modernization and innovation in Soviet military capacities. Eastern Europe's economic future is sufficiently unpromising that at the very least the Soviet leaders will probably find it difficult to decrease subsidies to its allies, and it may face difficult choices in which it either increases subsidies, or takes its chances on East European economic and political instability.

The preferences of the population itself are in some ways an exogenous variable for the system, and one whose development is increasing the tasks the system must resolve. The educational level, sophistication, and living standards of Soviet citizens continue to

rise, and so also would one expect a constant rise in citizens' standards regarding the performance of the system.

All of these exogenous variables are moving in a direction which challenges the ability of the system to cope. As Soviet leaders know well the system is operating on a moving target; and an unchanged system working on steadily deteriorating exogenous variables is hardly a system with a bright future.

The critical question is whether Soviet leaders have reached the limits of the traditional model. Is it now the case that they have exhausted all of the potentially effective partial reforms and policy changes available to them, and that their only options in the face of deteriorating exogenous factors are to change the system, or do nothing, which would threaten the very foundations of their power trying to defend it? We can count on Soviet leaders to search for new reforms and policy changes. But, will they look in the right places, and is there anything there to find?

I think they may well look in the right places, and also that there may be something there. Andropov's fifteen months in office provide interesting, although hardly unambiguous, testimony on this. During that short time there were no reforms in the system, but there were some policy changes. Most notably Andropov began the process of bringing new, younger people into positions of power in the administrative apparatus; and he instituted a serious discipline campaign. Both obviously had a positive effect on the morale of the population, and it is not implausible to argue that some of the growth rate acceleration of 1983-4 reflect positive results of those policies. Is it not possible that a somewhat younger leader (say Gorbachev), as

he is given or creates the opportunity to oversee generational change in the bureaucracy, can invigorate that bureaucracy sufficiently to improve its operation? These are the sorts of things about which economists should say very little, but it does seem worth considering that by merely revitalizing the leading cadre of the Soviet economy even the traditional model could work better.

There are also ways in which new policies could act to slow the decline in growth rates. Even within the traditional system, a serious commitment to increased energy conservation (backed by new investment funds available for energy-saving technologies, and a firm commitment by planners and the Party), combined with a decline in investments in energy production, could have positive effects on the growth rate. (Hewett 1984c). To the extent the housing problem is one of investment priorities, the old system could implement new priorities and increase the rate at which apartments are added to the stock. The Food Program, now in its third year, is more policy than system change, and may bring some improvement in agricultural performance.

Each of these possibilities have two things in common. They do not require any change in the system. And political leaders are fully aware the possibilities exist.

There are also partial reforms which might work, and which could be designed in a way to limit contradictions with the traditional system. The Shchekino Method is a good illustration. By giving enterprise directors more authority over how they manage their labor force, and what they pay them, incentives are strengthened to economize on labor, and as a result effective labor supplies would expand. To be sure, this would have to be handled very carefully vis-a-vis local

party organizations (who could be counted on to effectively represent workers' interests in this) and the ministries. But the experiments here suggest that this is a workable approach. Brigade methods for organizing labor, if handled properly (and not formally) hold similar promise.¹⁷

The current experiments which put so much emphasis on the fulfillment of delivery contracts, do not promise major results, but they could serve to break some bottlenecks when introduced more widely. And, a reorganization of the ministerial system, discussed for some time, might--if skillfully handled--serve to remove some of the more irrational effects of "departmentalism" which show up as excess demand for transportation services; inefficient, small-batch runs outside of products produced outside a ministry's nomenclature; and some unnecessary bottlenecks.

A vigorous leadership, bent on exploring possibilities for policy changes and partial reform which would retain the essentials of the system, but improve its operation, has, it seem to me, a chance of success. And the chance that the Soviet Union will soon have a leadership interested in exploring such possibilities seems decent enough. The older generation is about spent, and the generations of Romanov, Gorbachev, and Vorotnikov will soon be able to set about consolidating their power. Declining performance indicators will keep their attention on the need to do something; and they will be able to find plenty of economists ready to give them sound advice.

If this indeed occurs, then fifteen years from now the system will look much as it does today, differing only in matters of policy and possibly some systemic features which are not fundamental features of

the system. It is conceivable that under this scenario, performance would stabilize and not continue to deteriorate; depending on the policy decisions some of the microeconomic imbalances could be substantially narrowed (food, housing). There would still most likely be problems in the supply of high quality manufactured goods, still be macroeconomic imbalances, and rates of technical change could still be below what planners desired. But it would be turning in an acceptable performance, comparable to that of the mid 1980s.

What if the leadership never finds its vigor, and instead by default it tries to keep the old system, and policies, just as they are? Economic performance would continue to deteriorate, and in some years national income growth rates could be negative (although it is hard to see how that could consistently happen with a growing labor force and growing capital stock, however slowly both may be growing). Is that a politically acceptable outcome for the population? No one really knows. Growth rates in the late 1970s and early 1980s were very low in the Soviet Union, low enough that it would have been reasonable to expect some political signals from the population. Nothing of the sort occurred. It is possible that the Soviet consumer, already exhibiting his patience, still has reserves there, particularly if the leadership exploits them with skillful use of real or imagined external threats. But it is unlikely that Soviet leaders want to test the patience of their population in this way, which is why they can be counted on to search for ways to invigorate the old system.

All of this leads me to conclude that it is certainly possible that at the end of the century the Soviet system will be much as it is today. It might even be the most likely outcome. To say something

more precise it would be necessary to actually try to connect up the major possibilities for partial reform and policy change with economic performance variables in order to gain a more precise notion of performance possibilities. That is beyond what I was able to do for this paper, so I leave it in this vague formulation.

Radical reforms are the least likely scenario for the rest of this century. In a way that is a very safe statement. We know from the Hungarian experience (as well as others) that economic reforms are like capital: they have a long gestation period. In the Soviet case, the traditional model is so well ensconced, there would be a very long gestation period indeed. Even if the leadership began next year designing a radical reform, realistically it would be the 1990s before the implementation phase could start. But no Soviet leaders, and very few Soviet economists, have shown the slightest interest in radical reforms, or even the more modest Hungarian approach, for the Soviet economy. They are confident that the system is fundamentally sound, but in need of improvements. As a worst case it might take terrible performance in the Twelfth Five Year Plan to shake that confidence, which delays the implementation phase of reforms to no earlier than the mid 1990s.

NOTES

1. This section draws on a somewhat lengthier discussion in (Hewett, 1984a).
2. I am not the first to use the term. See, for example, Brus (1979).
3. Hewett (1984b, Chapter 2) discusses this. For an excellent, and very detailed discussion, see Gustafson (1984).
4. RFE-RL, 1983, p. 21. This paper was apparently presented as a seminar on the economy held in Moscow in April 1983. It was not meant to be circulated publically, but was leaked to western newsmen, and also, somehow, to RFE-RL. There is good reason to believe that the paper was authored by Tat'iana Zaslavskaja, a sociologist who is head of a section concerned with social problems in the Novosibirsk Institute of the Economics and Organization of Industrial Production. To my knowledge she has never publically confirmed that she authored the paper.
5. See in particular Chernenko, 1984b.
6. At least in the traditional system one can stand in line to acquire products, and in many cases it is possible to get away from work to do that. That is part of the egalitarian flavor to the traditional system. Under the reformed system flexible prices would considerably reduce lines, and their egalitarian externalities; and discipline at the workplace would be tighter, so it would be more difficult in any event to get away and stand in lines.
7. CIA, 1983, p. 62.

8. OECD Europe GNP growth rates in 1961-65 averaged 5.5 percent per annum; during 1980-81, there was, on average, no significant GNP growth. (CIA, 1983, p. 35.)

9. It certainly has been the case in Hungary (see Hewett 1981).

10. For an indication of the current high priority for, and concern about, the food program, see Chernenko's speech to the "All-Union Conference on Problems of the Agro-Industrial Complex" (Chernenko, 1984c).

11. Computed using production data from the report on fulfillment of the 1983 plan, Ekonomicheskaja gazeta, No. 6, February 1984, pp. 7-9.

12. "...now the situation at times is simply offensive: the starting materials are good, but the production is such that people prefer to overpay speculators for good tastefully manufactured commodities." Andropov, 1983c, p. 4.

13. See particularly Gorbachev (1984, p. 12).

14. "Nuzhna reshitel'naia perestroika," ("A Decisive Restructuring is Needed"), EKO, August 1983, p. 23.

15. Hewett 1983.

16. For a more detailed argument on this point with some help from a small econometric model, see (Hewett, 1984).

17. For a discussion of these and other possible partial reforms focused on the wage fund, see Aganbegian (1984).

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