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Soviet Strategic Policy and Detente

- Contribution on the "Economic Dimension" -

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A. The Soviet Economic Condition

1. The Basic Strength of the Soviet Economy

The USSR has a powerful economy and the necessary resources for further development. The rapid pace of industrial growth, fostered by massive infusions of labor, capital and borrowed technology, has given the Soviet leaders the ability to support a defense capability that is on a par with that of the US while simultaneously fueling additional growth. Although Soviet achievements in agriculture have not been as impressive as those in industry, the average Soviet citizen is adequately fed and clothed. By US standards the lot of the Soviet consumer is drab -- real per capita consumption is about one-third that of the US -- but by his own standards, and by the standards of all but a few nations of the world, his lot is tolerable.

While problems persist, the basic strengths of the Soviet economy have permitted the Soviet leadership to resolve conflicts between fundamental long-run goals without recourse to drastic actions. Neither the agriculture fall-backs of 1972 nor the declines of recent years in the rate of technological growth in industry have forced the Soviets to abandon such ideological scared cows as central planning and control over the economy, the counter-productive system of incentives or the favoring of industrial development over

agricultural growth. The leadership has, in fact, gone no further in meeting the current challenges than to tinker with the administrative apparatus and to accelerate their effort to borrow technology from the West.

2. Problems in the Soviet Economy

a. The Growth Slowdown: The slowdown in overall growth from 6-1/2% in the 1950s to 5-1/2% in the 1960s and continuing into the 1970s at still slower rates has naturally been a disappointment to the leadership. Their dissatisfaction with agricultural performance goes beyond the temporary setback occasioned by a crop failure. The recent rate of growth of industry of 5-6 percent is clearly below expectations and long-run goals. The leadership has correctly sourced a major part of the growth problem to the USSR's overall technological inferiority to the industrial West and Japan.

b. The Growing Technological Gap: While the leadership recognizes the importance of the USSR's technological inferiority to the industrial West and Japan, and probably understands the root causes of the lag, it is unwilling to directly confront the implied managerial and organizational changes and all their consequences. Decrees reforming the applied R&D sector and the recent reorganization of industry suggest leadership perception that the traditional organization is outmoded in these spheres. But, as in the past, the newly adopted measures are cosmetic in content.

The Soviet enterprise manager is no more quality-oriented or innovation-minded after these changes than he was before. Moreover, no leadership figure or knowledgeable subaltern has hinted at reforming the system of incentives which emphasizes output-plan achievement, sacrifices quality, discourages (or at least does not encourage) new ideas, and encourages ministerial petty tutelage of enterprise managers. Recent productivity trends, moreover, support the idea of a widening technological gap.

c. Rising Consumer Expectations: Consumer welfare also impinges on productivity growth and the technological gap. Though well-fed and well-clothed by comparison with past generations, the present Soviet generation is demanding more sooner. This generation, moreover, seems well aware that its living standard is inferior to even that of Eastern Europe and certainly to that of the industrial West. This inferiority is felt not only in the amounts of consumer goods available, but also in their quality.

d. The Agricultural Situation: Agriculture is the weakest and least productive sector of the Soviet economy. The system of giant collective and state farms has proved to be the worst managed and least efficient organizational form in the country. Nearly a third of the labor force is still employed on the farm, and the cost of producing grain and meat

is far above world market prices. Large increases in farm gate prices and peasant incomes over the last decade have slowed the flight of labor from the farm, but have also raised costs without stimulating efficiency. In spite of the world's largest inputs of labor and investment, the USSR is periodically forced into Western markets for food to provide promised improvements in the diet for the population.

e. Defense: The present level of Soviet defense spending when viewed as the cost of maintaining and expanding the stock of military assets absorbs 6-7 percent of GNP. Military machinery production accounts for about 10 percent of total industrial output. Uniformed and civilian employees of the Ministry of Defense number about 5 million. Thus, the defense "burden" is present, but it is not serious. The Soviet leadership would obviously like to have more of these resources -- particularly, higher-quality labor -- devoted to other uses, but it probably is aware that a moderate shift to civilian uses would not be a panacea for improving the economy's performance. Further growth of the economy and projected increases in scientific and technical graduates, moreover, will likely give the leadership more freedom of manuever in the economy as a whole and thus enable it to meet feasible defense needs without disrupting other plans.

B. Soviet Expectations from Detente

1. Freed Resources

The economic benefits for the USSR of either a brake on the upward trend or an absolute reduction in military spending are limited and are insufficient by themselves to force the Soviet Union into a SALT-type agreement. As the rate of growth of GNP has outstripped the growth of military expenditures since the mid-1950s, the share of Soviet resources devoted to military programs has fallen steadily -- from 13 percent in 1950 to 6-7 percent in 1973. Because the economy has grown so rapidly, military programs now require only about one-tenth of industrial output and one-third of the production of the machinery sector. If defense spending had been held at early 1950 levels, the added growth of GNP would have been only two- to three-tenths of a percentage point per annum.

Although the Soviet Union can afford to spend more on its military programs, this does not mean that the occasional complaints of Soviet leaders about the burden of military programs are meaningless. The Soviet leaders surely would not welcome an escalation of defense expenditures which would leave unchanged the relative strength of the two blocs. And in some areas where the civilian economy is backward -- such as computers and some kinds of electronics -- a release of some of the talent heretofore pre-empted by military research and production would be of substantial help.

2. Technology Transfers

A major gain from detente would be the acquisition of high-quality Western technology through trade and assistance agreements. The Soviet leaders believe that the shortcut to technological progress and accelerated growth in productivity lies in importing western machinery and technology while promoting technical exchanges. If carried on consistently over a long period of time this policy would upgrade Soviet economic performance, particularly in terms of the quality of production. Indeed, the most dynamic sectors have depended crucially on imports from the West -- for example, chemicals and motor vehicles. Still, the imports will not result in a marked increase in the rate of growth of GNP over the next several years because the potential contribution of western machinery to total investment is relatively small and limited by the USSR's ability to secure a growing volume of long-term credits. In addition, western technology is not always easy for the Soviet managerial and R&D systems to assimilate.*

* The Soviet applied R&D system is immensely inefficient: there is poor coordination and communication between basic and applied research institutes, between institutes and enterprises and between enterprises; the scientific education curriculum is out of tune with the times; the development stage of the R&D process is neglected in terms of funds and other resources allocated; incentives to innovate are inadequate at all levels; and administrative paperwork inside institutes detracts from "think" time.

Moreover, although the reliance of the USSR on the West for advanced equipment and technology is important and growing, the dependence on US equipment is relatively small. By far the largest part of the USSR requirements for production equipment could be met by Western Europe and Japan, often at comparable quality. In a few important cases the US enjoys a substantial technological lead, for example, oil production and exploration equipment, advanced integrated circuits, high capacity data processing equipment, and a few specialized types of equipment for truck production. In these cases the USSR would prefer to buy from the US, but the demands are postponable.

3. Soviet Need for Foreign Assistance

The USSR possesses extensive mineral deposits and timber resources. Many of the richest deposits, however, are underdeveloped and are located in Siberia and in the Soviet Far East where severe climate and poorly developed or nonexistent infra-structure present unusually difficult problems of exploitation.

For some of these resources --- most importantly crude oil and natural gas -- the need to develop new deposits to meet currently planned production goals for the 1970s is urgent. Moreover, if these deposits are to be developed on schedule, modern petroleum equipment and technology must be acquired from the West. In the case of other minerals--for

example, copper--the need to develop new deposits is less urgent, but, because of the long lead times before production, development should get under way soon if new sources of supply are desired by the late 1970s. Foreign assistance is desired for these projects because capacity and technological limitations in many areas of the domestic machine building industry would make it very difficult for the USSR to provide adequate support to a broadly-based and economical exploration and mining program in the 1970s without seriously disrupting other high-priority programs. However, limitations exist on the amount of credit the USSR can use to obtain such assistance. The USSR owes the West about $2 billion. Debt service now takes up about 20% of its export earnings from the West, and continued use of Western credit at the current rate might soon boost this percentage to a point beyond which the USSR would not be willing to go.

As a result, the USSR is seeking help from the industrial West on a very large scale. Although the total dollar value of the foreign investment sought is not known, the joint Soviet-Western projects now under consideration would eventually entail as much as $10 to $15 billion of hard currency financing over the next decade. (See Annex for a brief description of the projects).

This magnitude of foreign investment would be roughly equivalent to 4 or 7 percent of the total dollar value of Soviet domestic investment in 1972. If Soviet investment from its own resources grows 6 or 8 percent annually over the next decade these additional foreign investments will add only one-tenth of a percent at most to the annual rate of growth of investment. Assuming that all of the assistance is in the form of equipment it will add less than one-half of a percent to the annual growth of the equipment component of investment.

4. Soviet Need for US Grain

Brezhnev's commitment to expand meat production is the most striking example in his policy to improve the lot of the Soviet consumer. This program for bettering the national diet has created a demand for grains that cannot be met from domestic production even in a year of good weather. In the face of a moderate downturn in domestic grain production in 1972, the Soviets bought 28½ million tons of foreign grain last year, primarily to support their ambitious livestock program. Despite all signs of a record high grain harvest this year the Soviets are estimated to have already bought 8 million tons of foreign grain.* Even with normal weather in 1974 and 1975 the Soviets will again need sizeable imports of grain. However, by encouraging substantially higher production in Canada, Argentina, Australia, etc. with the help of long-term contracts, the USSR with an average crop could probably avoid the purchase of US grain.

* The bulk of these purchases have been made in the US and the Soviets claim that they will buy no more US grain this year in order to ease the pressure on our grain markets. If crop prospects deteriorate and more imports are need, the Soviets can probably find adequate supplies in Canada, Australia and Argentina.

C. Arms Programs vs. Economic Goals

1. General

Clearly, detente can be a way of limiting conflicts between economic priorities if it results in arms reduction. Such a reduction would permit the Soviet leadership to use resources currently tied to the defense effort in the resolution of other economic problems. The size of the Soviet economy is so large and its growth high enough, however, that detente's contribution to solving economic problems would be small in the aggregate. As indicated above, direct defense spending is only 6-7% of GNP and military hardware production is only 10% of total industrial output. It can be argued, however, that because the defense sector uses some types of resources traditionally in very short supply transfer of these resources to civilian uses would provide impetus to growth beyond that suggested by the overall aggregate measures of burden. In this sense, the resolution of conflicts between arms programs and economic growth must be looked at on a more disaggregated basis.

2. High-quality Products and Materials

The defense establishment purchases three-quarters or more of the output of the aircraft and shipbuilding industries, two-thirds of electronics production, about 40% of numerically controlled machine tools, one-third of the production of the instrument industry and one-tenth of truck production.

Unquestionably, the Soviet economy would benefit from alleviated defense demands on its electronics, instrument and numerically-controlled-machine-tool industries. Also, the Soviet economy's over taxed transportation system might benefit by more aircraft and ships for civilian uses.

Although high quality product and material resources from the above branches of the economy could be shifted to civilian investment the utility of such investment depends on its rate of return (i.e., its effect on growth). An accumulation of evidence indicates that the return on Soviet investment in its present pattern and distribution has gotten very low. This means that, barring some drastic institutional reform, a large transfer of resources embodied in the above types of products from defense to investment is likely to increase the rate of economic growth by a disproportionately small percent.

3. Manpower

The nationwide shortage of manpower evident in the late 1960s is easing somewhat. The military's demand for 3.8 million uniformed personnel and another 1 million or so

civilian employees together currently occupies only 5% of the total labor force.

The call-up of new recruits does not unduly exacerbate the problem of providing civilian industry with young workers. Finally, the military teaches skills (e.g., construction) which are usable in civilian life.

The best scientific and engineering talent is siphoned off by the defense sector. Hence, a reduction of defense expenditures would make many highly skilled persons available for the rest of the economy. Again, the tight supply situation in these skills evidenced in the 1950s and the 1960s has eased considerably and by 1975 will likely have diminished greatly due to a much larger stock of persons with degrees in the relevant disciplines.

4. Technological Progress

The impact of arms reduction on the rate of technical progress in the USSR will likely be slight. The benefits from transfering highly-qualified scientific and engineering manpower and technical skills from defense to non-defense uses would be limited. Most importantly, the problems in Soviet technology are in the management of its applied R&D system and in the management of industrial enterprises where the incentive systems at all levels are counterproductive.

In short, because of these and other reasons civilian industries could not effectively use large amounts of these resources without a substantial institutional reform. The chief gain for technological growth of an arms reduction would come from the increased availabilities of machine tools and electronics. But the impact of increased supplies from these sectors might be limited by the management problem discussed above.

5. Consumer Goods

There would be negligible impact on the availability of consumer goods as a result of reduced military demands on the civilian economy. Reduced military demands for food and clothing would, of course, be partly offset by the demands of ex-service personnel as civilians. Some increase in output of consumer durables could be expected since the defense industries have the technology which is readily adaptable to their production. The quantities added to total supply, however, would be small.

ANNEX

This annex provides a brief summary of major US-USSR joint ventures currently under discussion. In the three main cases, Soviet payment for US assistance in developing Soviet resources would involve a special form of barter payment in which US firms would be repaid in the product of the venture. A number of other projects are being discussed or negotiated with potential Western suppliers, some of which may involve US participation.

Development of Natural Gas Deposits in West Siberia

The USSR and a consortium of three US companies -- Tenneco, Texas Eastern Transmission Corporation, and Brown and Root -- recently signed a letter of intent to cooperate in the development of facilities that would permit shipment of 2 billion cubic feet of liquefied natural gas (LNG) per day from the large Urengoy field in Western Siberia to the US east coast. As now envisaged, this project would entail dollar investment of some $6.5 billion plus ruble costs equivalent to about $1 billion that would be incurred for construction in the USSR. Of the dollar investment, about $3.7 billion would be in the USSR for gathering lines in the Urengoy field, a 1,500 mile large-diameter pipeline from the field to a new port on the Kola peninsula, and a gas liquefaction plant and related facilities at the port. A fleet of 20

LNG tankers is expected to cost about $2.6 billion, and terminal facilities in the US some $200 million to $300 million.

Development of Natural Gas Deposits in East Siberia

Occidental Petroleum Corporation and El Paso Natural Gas Company have signed a letter of intent to purchase more than $10 billion worth of Soviet gas from the Yakutsk basin in Eastern Siberia over a 25-year period. Delivery of 2 billion cubic feet per day of gas is to begin in 1979. The Japanese are being invited to participate in the venture and would take half the gas and the remainder would go the the U.S. west coast. About $2 billion worth of hard currency financing for a 2,000-mile pipeline and a liquefied natural gas plant in the Vladivostok area will be required. Additional costs -- possibly some $2.5 billion -- would be incurred for the construction of 20 LNG tankers. At the present time, however, proved reserves of natural gas in the Yakutsk basin are inadequate to provide deliveries on the scale being discussed. The USSR currently is seeking to borrow some $125 million from Japan to conduct exploration to prove the gas reserves.

Production of Mineral Fertilizers

Occidental Petroleum Corporation has signed a $7-8 billion

exchange contract with the USSR -- the largest Soviet-American trade deal in history. The agreement covers the sale by Occidental of up to 1 million tons per year of superphosphoric acid to the USSR for production of phosphate fertilizers in return for Soviet amonia, urea, and potash. Under the terms of the 20-year contract, Occidental also will build 8 ammonia and 2 urea plants in the USSR costing roughly $400 million and will be repaid with products from the plants. The exchange is tentatively scheduled to begin in 1978, although recent reports indicate the starting date may be moved up to as early as 1975.

Other

Other projects being negotiated or discussed include the Tyumen-Nakhodka pipe line which calls for about $1.3 billion in Western investment (about $300 million for the US); Udokan copper deposits -- about $1 billion (US participation unknown); Chulman coal deposits (about $600 million Western investment with little or no US participation); Monte Edison fertilizer project (about $300 million in Western investment with no US investment); various timber and wood chip projects (roughly $500 million with no US participation); oil drilling off Sakhalin Island (about $200 million initially and some $100 million in US participation); iron ore development costing about $1 billion with no known US participation.

Total Western investment in the USSR estimated if all of these projects go forward would be somewhere between $10 and $15 billion -- probably close to $12 billion. US participation would be half or more.