ANNEXE III

Central Intelligence Agency
Soviet Economic Problems and Prospects
August 8 1977

A Study prepared for the Use of the Subcommittee on Priorities and Economy in Government of the Joint Economic Committee - Congress of the United States

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Transmitted herewith is a study entitled "Soviet Economic Problems and Prospects," prepared by the Central Intelligence Agency for publication by the Joint Economic Committee. (…)
The study is a comprehensive assessment of current trends and future prospects of the economy of the Soviet Union. According to the study, the Soviet economy faces unusually serious strains in the decade ahead. The rate of growth is expected to slow down as a result of the intensification of longstanding problems including a slowdown in the growth of capital productivity and an inefficient agricultural sector. In addition, a sharp decline in the growth of the labor force and a shortfall in crude oil production are expected to greatly aggravate the resource strain. (…)
Chairman, Subcommittee on Priorities and Economy in Government (…)

Soviet Economic Problems and Prospects

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Summary
The Soviet economy faces serious strains in the decade ahead. The simple growth formula upon which the economy has relied for more than a generation-maximum inputs of labor and capital-will no longer yield the sizeable annual growth which has provided resources needed for competing claims.

In the past, rapid growth enabled Moscow simultaneously to pursue three key objectives:
* catching up with the US militarily;
* steadily expanding the industrial base; and
* meeting at least minimal consumer expectations for improved living conditions and welfare.

Reduced growth, as is foreshadowed over the next decade, will make pursuit of these objectives much more difficult, and pose hard choices for the leadership, which can have a major impact on Soviet relations with Eastern Europe and the West.

This study examines the causes of the slowdown in growth, its implications, the policy choices open to the Soviet leadership, and their possible impact on defense, the consumer, foreign trade, and US relations.

Causes of the Slowdown
Factors tending to slow down the rate of growth have been apparent for some time.

* The drying up of rural sources of urban labor force growth;
* A slowdown in the growth of capital productivity;

* An inefficient and undependable agriculture which may be hit hard by a return of the harsher -but probably more normal- climatic patterns that prevailed in the 1960s;
* A limited capacity to earn hard currency to pay for needed technology imports and intermittent massive grain purchases.

These problems are not new. The Soviet leadership has tried to offset their effect by improvisation and palliatives, without impairing the priority development of defense production. They did not succeed, however, in preventing a steady fall-off in economic growth from its earlier high rate.

Looking toward the next five to ten years, these long-standing problems are likely to intensify, and will be joined by two new constraints which will greatly aggravate the resource strain: a sharp decline in the growth of the working age population and an energy constraint.

Labor force. In the 1980s the rate of growth of the labor force is expected to drop sharply (to less than 1 percent beginning in 1982) because of the depressed birth rates of the 1960s. Moreover, additions to the labor force will come mostly from ethnic minorities in Central Asia who do not readily move to the northern industrial areas.

In anticipation of this labor force constraint, the Soviet government is planning for an accelerated growth in the productivity of both labor and capital in the current 5-year plan (1976-80). But for years productivity gains have been slowing, and this trend is likely to continue given the sharply rising resource costs facing the economy. The more readily accessible fuel and mineral reserves west of the Urals are being rapidly depleted, while the abundant but more remote resources of Siberia and Central Asia require enormous investment outlays.

Energy. The most serious problem is a looming oil shortage. Soviet exploration and extraction policy has long favored increasing current output over developing sources of future output. As a result, new oil deposits have not been discovered rapidly enough to offset inevitable declines in older fields. Consequently, production will begin to fall off in the late 1970s or early 1980s. The current level of oil production is close to the estimated maximum potential of 11 million to 12 million b/d. By 1985 oil output is likely to fall to between 8 million and 10 million b/d.

The decline in output may or may not be a temporary phenomenon. The USSR is counting on large new supplies of oil and alternative energy sources -coal, natural gas, and hydroelectric power-coming onstream beyond the mid-1980s. But most of these energy sources lie east of the Urals, far from major industrial and population centers: their development would take years and require massive capital investment.

In the near-term, however, even if the development of alternative energy sources is pushed to the maximum, overall energy output will grow at a sharply declining rate. Under a plausible set of assumptions, it would decline from 4 percent in 1976-80 to slightly above 1 percent in 1981-85. Since Soviet energy consumption increases in close parallel with the growth of the economy, a sharp slowdown in energy production would seriously constrain economic growth unless Moscow finds ways of conserving large amounts of energy or covers its shortfall by becoming a net oil importer. The Soviet government appears to be aware that it has an energy problem but has not yet made the difficult choices which will be needed to deal with it. The longer the delay in adoption of a top-priority energy program, the greater will be the economic impact in the 1980s.

Policy Choices
Measures for grappling with these varied problems must meet two tests: first, they must be designed to remedy particular elements of the problem -the labor force, productivity, and energy constraints; second, they must be shaped with the recognition that the problems are interrelated, and that measures aimed at easing one problem may aggravate another.

Even on the first level, it will not be easy to find solutions that will do more than alleviate the component problems. Powerful remedies are either not readily available or not politically feasible.

The labor force constraint could be eased somewhat by such measures as retaining older workers longer in the labor force, shortening secondary education, and reducing military manpower by cutting the term of service. But such measures would have only a one-time impact.

Moscow's options for raising the rate of growth and productivity of plant and equipment are even more constrained.
* They could convert industrial capacity from defense to the production of investment goods. They would be reluctant, however, to impair their defense production capability. Moreover, specialized defense resources are not easily transferred on short notice.
* They could stretch out R&D programs and production schedules and slow the rate of expansion of defense-oriented industrial capacity, but this would have limited effect in the short run.
* They could institute incentive-enhancing reforms of economic management. Such reforms, however, will be resisted by powerful vested political and bureaucratic interests.

Even a combination of these measures-such as a leveling off of defense production, coupled with measures to obtain additional manpower-would probably raise economic growth only slightly.

Options for dealing with the energy problem are similarly constrained. Opportunities for conservation are less obvious in the USSR than in the West -for example, there are few automobiles and most are for commercial or industrial use. Consequently, conservation measures alone are unlikely to yield large oil savings. The leadership thus will probably have to rely on some combination of the following measures:
* importing substantial amounts of oil from non-Communist countries;
* cutting oil exports to Eastern Europe; and
* severely rationing oil to domestic users.

Moving from a position of major oil exporter to that of a net importer would be particularly painful. Last year Soviet oil exports of $4.5 billion accounted for almost one-half of its hard currency earnings. If current trends are projected with no change in present policies, Soviet oil import requirements by 1985 could cost $10 billion at today's prices. Even with high priority measures to boost other exports, including gold sales, oil imports at that level would absorb most of the Soviet hard currency earnings in the 1980s, and largely foreclose the import of other goods from the West, including badly needed Western technology.

Cutting oil exports to Eastern Europe would ease this problem by forcing Eastern Europe to share the burden of the oil shortage. Any substantial cut in the Soviet oil supply commitment to Eastern Europe, however, would worsen that area's already difficult economic situation.

Placing the burden of the oil shortage on the domestic economy would mean curtailing oil rations to producing enterprises. Such cuts would almost certainly impede production, though the impact would be less severe if reductions were more gradual as part of a long-term energy-saving program.

Implementing the foregoing solutions is complicated by the fact that the problems are interrelated and the solutions impinge upon each other. For example, pressure on enterprises to save labor will be much less effective if they must also save energy. If the energy shortage is eased by allocating foreign exchange to import oil, the resulting decline of imports of foreign machinery and technology would adversely affect productivity and economic growth within a few years. Failure to import large amounts of energy equipment and technology from the West would substantially worsen the USSR's prospects for raising oil and gas production in the longer-term.

We conclude that a marked reduction in the rate of economic growth in the 1980s seems almost inevitable. At best, Soviet GNP may be able to continue growing at a rate of about 4 percent a year through 1980, declining to 3 - 3½ percent in the early and mid-1980s. These rates, however, assume prompt, strong action in energy policy, without which the rate of growth could decline to about 3½ percent in the near-term and to 2 - 2½ percent in the 1980s.

These are average figures; in some years performance could be better, but in others, worse, with zero growth or even declines in GNP a possibility if oil shortages and a bad crop year coincide.

Potential Impact on Defense The slowdown in economic growth could trigger intense debate in Moscow over the future levels and pattern of military expenditures. Military programs enjoy great momentum and powerful political and bureaucratic support. We expect defense spending to continue to increase in the next few years at something like recent annual rates of 4 to 5 percent because of programs in train. As the economy slows, however, ways to reduce the growth of defense expenditures could become increasingly pressing for some elements of the Soviet leadership.

On Consumers The reduced growth potential means that the Soviet consumer will fare poorly during the next five to 10 years compared to recent gains. Under the projected growth rates, per capita consumption could grow no more than 2 percent a year in contrast to about 3.5 percent since 1965. As a result, there will be no progress in closing the gap in living standards with the West or, for that matter, with most of Eastern Europe. Moreover, rises in wages over the next ten years combined with a slower growth in the availability of consumer goods would result in higher prices, more widespread shortages, and increasing consumer frustration.

On Relations with the US Moscow's economic problems in the 1980s will affect its relations with the West, especially the United States. Since the USSR's ability to pay for imports from the industrial West in the early and mid-1980s will be strained, Moscow may seek long-term credits (10-15 years), especially to develop oil and gas resources. Much of the needed energy technology would have to come from the US.

Stresses upon the Leadership
These serious problems ahead seem most likely to prompt Soviet leaders to consider policies rejected in the past as too contentious or lacking in urgency. Some leaders might be persuaded that basic organization and management reforms in industry are necessary. But that will raise the spectre that such reform would threaten political control. Consideration of other options - such as accelerating investment at the expense of defense or consumption, or reducing the armed forces to enhance the civilian labor force- could also result in strong leadership disagreements. Soviet responses to these problems could be further complicated by the fact that leadership changes will almost surely take place during the coming period. Even a confident new leadership would have difficulties in coming to grips with the problems ahead

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(…) To stave off or slow the expected fall in production, the Soviets will need high capacity lifting equipment involving US technology -gas lift and electric submersible pumps. Without them, oil production will fall sooner than would otherwise be the case.

(note 2) During 1972-77 the USSR has ordered more than $3.1 billion of Western oil field equipment and oil and gas pipeline equipment, and an additional $4.1 billion for steel pipe. US sales have totaled more than $550 million, of which $148 million was for downhole electric pumps. Over the next few years (1977-80) annual orders for such equipment will probably increase since Soviet pipeline construction will increase, and oil lifting equipment orders will rise sharply. Gas lift projects for Samotlor and Federov oil fields -now under negotiation- will involve Soviet purchases of $1.2 billion to $2.0 billion, depending upon the number of units and horsepower requirements.

We expect natural gas output to expand to an estimated 9.4 million b/d of oil equivalent by 1985 -roughly double production in 1975- probably exceeding crude oil output in caloric terms. The key to growth will be the pipeline capacity needed to carry large volumes of gas from huge new West Siberian fields to the western USSR and Europe. The main bottleneck will be high-capacity compressors; most of these are imported from the West and have long lead times for negotiation, manufacture, and delivery.

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The USSR cannot accept the consequences of a business-as-usual program. If Moscow continues its present energy policy, oil output would drop to 8 million to 10 million b/d by 1985 while consumption would rise to some- what more than 10 million b/d. The implications of this shortfall for hard-currency earnings and Soviet ability to supply oil to Eastern Europe are disastrous. The implications for the economy if the shortfall were taken out of domestic consumption rather than by shifting from net exports to net imports are serious. Energy conservation is an obvious goal, but exceedingly difficult to achieve. Help may be sought from the West.

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All in all, we do not believe that the Soviet leadership can continue on its present course if a marked slowdown in growth is to be avoided. The resource situation and the ineffectiveness of the measures designed to raise productivity will force the leadership to develop new policies.

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Serious economic reform, while certain to be on the agenda for discussion, is much less likely to be included in a policy package.
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Material Supply
Turning to the problems raised by the possibility of critical industrial material shortages, the near-term options open to the leadership narrow down to conservation, increased imports, and reallocations toward preferred uses. For a commodity like steel, conservation has little short-run potential. Steel import tonnage has doubled since 1970, mainly in the categories in short supply in the USSR -large-diameter pipe, cold rolled steel, and high-quality tubing and electrical sheets. Planners have used a soft world steel market to offset domestic shortfalls in the past. Anticipated constraints on hard-currency availability, however, will severely limit Moscow's ability to obtain steel in the West in the 1980s.
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Economic Reform
A thoroughgoing reform of the economic system could boost appreciably the efficiency and quality of production over a period of years. But the Politburo correctly perceives that reform threatens its political control. The most radical reform conceivably acceptable would be some kind of market socialism, which might also include a larger role for private enterprise in agriculture and services. The obstacles to reforms of this kind are thorny. Introduction of markets and expansion of private activity would entail compromises with ideology, and markets, if effective, would replace bureaucrats and hence incur resistance. Economic reforms would threaten the entrenched positions of both state and party bureaucracies and weaken the Party's grip on the economy. Moreover, the transition to markets could cause unemployment and severe disruption in the short run. Therefore, unless a serious breakdown in the economy occurs, changes in planning and organization are unlikely to be a factor in stimulating economic development through the 1980s.
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Business-as-Usual Case
If the USSR fails to limit the damage implicit in a downturn in oil production, GNP growth could fall off abruptly (table 2). The projection puts the transition in the 1981-85 period although oil production may drop in the next few years. In the business-as-usual projection, the effects of fuel shortages (perhaps reinforced by shortages of other raw materials) are represented by a decline in the level of the productivity of factor inputs. Factor productivity has decreased in certain years because of bad crops, but the pervasive and continuing effects of shortfalls in fuel supplies could easily shut down some of the USSR's productive capacity. Indeed, over the course of a year or two, before adjustments can be made, the effect on productivity might well be larger than we have projected.
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Under these conditions, the inevitable rise in wages over the next 10 years combined with the slower growth in the availability of consumer goods will result in inflationary pressures and increasing frustration for the consumer. The Soviet consumer is relatively content as long as some improvements are made. However, if he is forced to experience an extended standstill in living levels, this could affect substantially incentives and productivity and cause public unrest. As a result, it is clear that to maintain an economy healthy enough to preserve domestic stability, the leadership must avoid a raw materials crunch.
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Implications for Foreign Trade
The USSR's growing economic problems will hit imports from the West especially hard. Although such imports are small in relation to Soviet GNP (1.6 percent in 1976), they have been increasing rapidly. Imports of machinery and steel have been especially important to the

Soviet economy, and, with increased stress on raising productivity the need for Western goods will become even greater. The problem is that the USSR will not have the foreign exchange to meet these increased demands. The expected fall in crude oil production threatens to squeeze severely Moscow's capacity to import Western manufactured goods.

Under any but optimistic scenarios for oil production, and in the absence of a high priority campaign to save oil domestically, the USSR will shift from earning to spending hard currency in its oil trade. The difference between selling 1 million b/d (as in 1976) and buying 2.7 million b/d1 (the projection for 1985 that assumes no unusual conservation efforts) is $17 billion in 1977 prices, more than the USSR's total 1976 hard-currency imports. A substantial rise in real oil prices, which is likely to occur at the very time when the USSR is becoming a net oil importer, would further increase the hard-currency drain. To offset such a shift, nonoil Soviet exports would have to more than quadruple in real terms in eight years-an impossible task.

Thus, Moscow will take steps, if necessary, drastic ones, to protect its ability to continue importing high quality manufactures and high priority foods from the West. Such steps would include all-out attempts to push nonoil exports, and reductions of oil exports to Eastern Europe.
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Political Implications
Soviet economic problems over the next 10 years or so will become highly complex and not susceptible to quick and easy solutions. As Soviet leaders obtain a better perception of the resource problems ahead, choices among economic policy options will become abrasive issues in leadership politics. For example, a conspicuous lack of success in coping with the energy problem could lead to a policy crisis and pressure for changes within the leadership.

Soviet responses to economic problems will be severely complicated by the fact that stability in the political leadership, which has been quite high over the 13 years since Khrushchev's fall, is almost certain to weaken during the coming period. Brezhnev's vigor and stamina are recurrently in question; his senior colleagues are his age or older. The controlling group has been timid in its approach to economic reform, and its timidity has grown with time; the 1965 reforms were only partially implemented, and the new constitution's emphasis upon centralization and party control testifies to Brezhnev's conservatism on these matters.

Cautious economic policies are likely to continue during a period of transition to a post-Brezhnev leadership. After a new leadership has finally established itself, it is more likely that policy options, which were considered and rejected in the past as too contentious or lacking in urgency, will be given a chance. For example, new leaders might be persuaded that basic organization and management reforms in industry and an expansion of the private sector in agriculture are necessary. They might also consider other options-such as accelerating investment at the expense of defense or consumption, or reducing the armed forces to enhance the civilian labor force.

The leadership may be spurred to action by the growing potential for consumer unrest as this sector is squeezed by both defense and investment in the competition for the nation's resources. Consumer expectations for an improved diet already have been disappointed because of the poor harvests of 1972 and 1975. An unfavorable climate change combined with a hard-currency shortage could require a degree of belt-tightening unknown since the

Khrushchev years. Having just experienced a decade of relatively rapid growth in levels of living, and expecting continued growth in the next decade, Soviet consumers will be doubly disappointed. They have, of course, learned to bear disappointments before, and the key unknown factor is whether another round will finally impact adversely on incentives and labor productivity.

Economic pressures that might elicit a major political reassessment will depend not only on domestic factors but also upon external developments, especially Soviet perception of the international "correlation of forces." Western economic health, North-South and Atlantic relations, OPEC and oil prices are among the most important factors that will enter into the equation.

The West's recent economic troubles enabled the East to gain in the growth sweepstakes in the early 1970s but, because of a lower-than normal demand for the East's exports, also increased the Bloc's debt to the West. Despite better Bloc export prospects arising from Western recovery, most of the problems related to a further expansion of economic relations with the West, including the debt accumulated, will remain.

In the meantime, the decline in Soviet hard currency import capacity -coupled with a continuing need for imports of Western grain, key industrial materials, technology, and equipment- will lead the USSR to look to new sources of foreign help. As indicated above the only viable option would be massive Western government-backed, self-liquidating credits for large joint ventures such as those proposed for the Yakutsk and North Star LNG (liquefied natural gas) projects. West Germany, Japan, and other Western industrial countries can provide substantial amounts of capital, technology and equipment, but US participation in such projects would almost certainly be required both because of unique technology and to spread financial and political risk.

The Burden of Eastern Europe
In deciding how much of the burden of rising costs and declining oil production Eastern Europe should bear, the USSR will have to be careful not to push its allies too hard to gain economic relief for itself. Reducing its oil exports to Eastern Europe will force these countries to spend scarce foreign exchange to buy more oil in the West at the expense of equipment and industrial materials vital for economic growth.

Moscow would see economic benefits from an expansion of East European trade with the West and to join potentially helpful international organizations such as the World Bank and International Monetary Fund. Western direct private investment may have to be accepted to help Eastern Europe deal with its hard-currency problems.

Communist Oil Policy in the Middle East
One major modification of Soviet policy in the Middle East which has already begun is likely to become increasingly important as time goes on. This is the degree of emphasis given by the Soviet leadership to using arms sales, particularly in the Middle East, as a hard-currency earner, as distinguished from using them as a loss leader for purely political purposes. As the economic function of arms sales becomes more and more vital to Soviet interests, the Soviets are likely to become proportionately avid in seeking customers possessing hard currency or its oil equivalent. This new economic interest superimposed on the old political interest in using arms sales to supplant Western influence is likely to reinforce Soviet disinclination to enter into international agreements restricting such sales.