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Soviet Energy Policy Toward Eastern Europe

A Research Paper

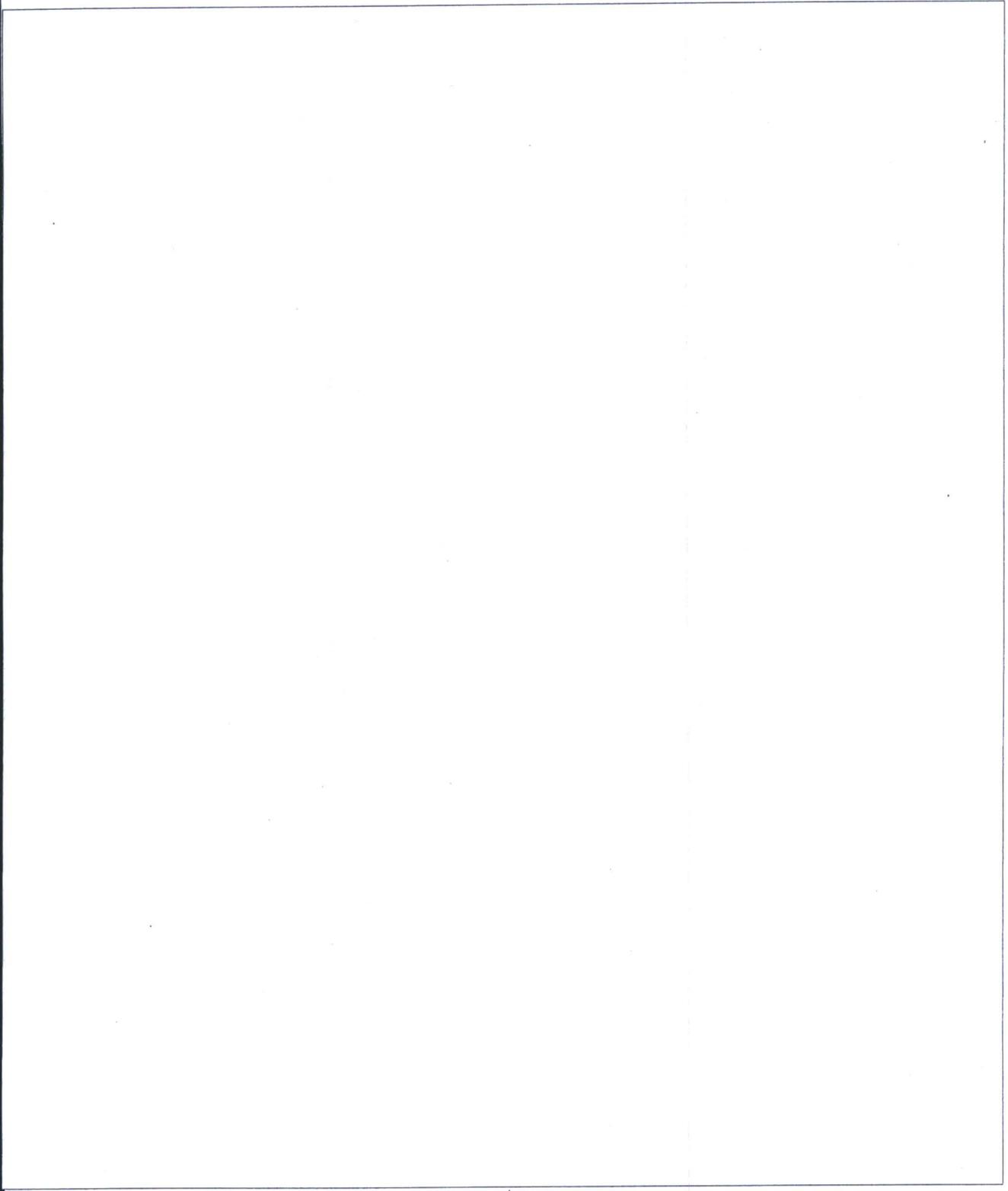
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Soviet Energy Policy Toward Eastern Europe



A Research Paper

*Research for this report was completed
on 1 March 1980.*

This paper was written by [redacted]
[redacted] Office of Political Analysis.
Comments and queries are welcome and should be
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[redacted] Office of Political Analysis,

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Preface

The USSR faces complex challenges in dealing with the energy shortage of the 1980s, and in few areas are the issues more involved or the stakes higher than in its energy policy toward Eastern Europe. The difficulties are great enough in purely economic terms, the political implications are weighty in their own right—and not for Eastern Europe alone. This paper examines the interactions between the Soviets and the East Europeans on energy and related issues, in an effort to provide an appreciation of the nature and the magnitude of the problems facing Moscow.

Resolution of the energy supply dilemma in Eastern Europe, through its critical impact on East European economic growth and economic interaction with the USSR, is likely to have important consequences in areas of major concern to the United States. Whether the Soviets are able to handle the East European energy squeeze without provoking serious upheavals, which might call for Soviet armed intervention, could significantly affect the overall course of detente, East-West trade, and possible arms limitation agreements.

In order to cope with their energy problems, the financial problems associated with them, and the intractable difficulties of technological progress, East European states are likely to continue turning to the West for relief. This will be especially so if—as is likely—the Soviet plan of integrated action on the energy front does not quickly bear fruit. At the same time, both the East Europeans and the Soviets will be competing increasingly with Western countries for OPEC oil. Given their lack of hard currency and, for the most part, less competitive manufactured goods, those countries in the Council for Mutual Economic Assistance (CEMA) must continue as vigorously as possible to seek oil, either as compensation for development assistance or as payment for arms shipments. Both these strategies will likely intensify the struggle in the Middle East and other oil-producing regions between Western, East European, and Soviet interests.

Soviet Energy Policy Toward Eastern Europe (U)

Overview *

The Soviet leadership views the USSR's energy relationship with Eastern Europe in the context of its efforts to increase specialization and division of labor among the Soviet Bloc countries, strengthen East European economic dependence on the USSR, and weaken East European ties with the West—that is, to promote Bloc economic “integration.” This energy relationship has in fact been the single most important element in the 1970s defining the substantive content of economic integration.

The significance of the energy issue, however, transcends economics. Economic integration is seen by Moscow as one of the three pillars—together with military and political integration—that support Soviet hegemony in this strategically vital region. The manner in which the energy needs of the Soviet client states are satisfied—or not satisfied—is an important factor affecting their economic growth and domestic political stability.

Despite countercurrents and resistance both in Eastern Europe and the USSR, Bloc economic integration has gradually increased in recent years. Given Eastern Europe's bleak prospects for substituting imports of energy and raw materials from other suppliers for imports from the USSR, or for substantially expanding exports of manufactured goods to the Western market, the trend toward integration probably will continue in the 1980s. If sustained, this further tilt toward the Soviet Union in the orientation of the East European economies will represent a major political achievement for the Soviet leadership.

Over the last 10 years Soviet energy policy toward Eastern Europe has been characterized by remarkable continuity and consistency. This stability is not surprising, since the policy has been shaped in response to an unchanging set of fundamental Soviet interests:

- To put the brakes on Soviet oil exports to Eastern Europe.
- To recoup the costs of Soviet fuel deliveries to Eastern Europe.
- To assure that East European energy needs are nevertheless met as much as possible.
- To use the energy relationship as a means of strengthening integration. (U)

* The overview of this research paper was previously published as an Intelligence Assessment in April 1980, PA 80-10160,

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These interests are not all mutually complementary, however, and in recent years tensions in Soviet policy and conflicts between the USSR and its allies on these issues have grown. The outlook for the 1980s is that these policy dilemmas and conflicts will become still more acute, forcing even tougher choices on Moscow. In the face of potential instability, the Soviets are as likely to demand that their East European allies strengthen discipline or take other political countermeasures to cope with it as they are to attempt to buy it off with more fuel or credits.

The Soviet-East European Dialogue

Despite their domination of key energy-related posts in the institutional structure of the Bloc's Council of Mutual Economic Assistance (CEMA), the Soviets have been compelled by the principle of unanimous voting to engage in protracted negotiations as they have attempted to push their strategy through CEMA. Thus, it has taken half a dozen years or more simply to reach agreement on what the Bloc energy program ought to be.

In the negotiations, the East Europeans have argued implicitly that:

- There can be no comprehensive solution to the East European energy problem that depends upon the states in this region substantially meeting their own needs by developing indigenous resources.
- The central element in a Bloc energy program must be energy and raw materials deliveries from the USSR.
- The program must address critical near-term energy problems.
- The program should offer long-term guarantees within the CEMA framework for energy supply.
- The costs to the East Europeans must be kept within tolerable limits.

To a large extent, these arguments have been ignored by the Soviets. The leading Soviet spokesman on CEMA matters, Premier Aleksey Kosygin, has never publicly accepted the premise that the solution of the East European energy problem is basically a *Soviet* responsibility. The themes he has stressed point in the opposite direction: that although the USSR will help, the basic responsibility lies with the East Europeans themselves. Thus Kosygin and other Soviet officials have talked about conservation, the role of coal in the energy balance, the upgrading of secondary refining capacity, nuclear power, synthetic fuels, expansion of the unified electric power grid, and renovation of electric power generating equipment—all areas in which Soviet assistance is possible, but in which the main burden must be borne by the East European economies.

Soviet Strategy

The Soviets conduct a two-track policy in their energy relations with Eastern Europe, proceeding simultaneously along multilateral and bilateral planes. The main multilateral arena has been CEMA and its various organs. The CEMA forum has been used by the Soviets primarily as a means of channeling Bloc economic discussions in the proper direction and of committing allies to agree in principle to various common economic activities. Bilateral relations are used for establishing concretely who should get what and at what cost, and they provide a more private and effective mechanism for the Soviets to bring to bear the full complement of their power resources, to play off one partner against another, and on occasion to make concessions.

The CEMA Program. The current Soviet strategy for dealing through CEMA with the East European energy problem is embodied in the so-called Power, Fuel, and Raw Materials Target Program adopted by the CEMA session of June 1978. The Target Program represents an almost total victory for the Soviet position. It places the burden of responsibility for energy provision basically on the East European states themselves.

First, it assigns top priority to electric power generation. The increase in electric power supply is to be accomplished in the near term through the expansion of coal-burning thermal power generation, and in the longer run through nuclear energy—to which the Target Program assigns highest priority. Second, the Target Program reflects the Soviet line in its heavy stress on conservation and efficient energy utilization. Third, and most importantly from the East European perspective, the Target Program responds only slightly to the critical East European concern over future Soviet energy deliveries.

The Target Program includes no joint projects that will guarantee oil to East European states in the 1981-85 plan period and no follow-on to the jointly undertaken Orenburg natural gas pipeline project that has now been essentially completed. The only joint projects now on the books that will guarantee delivery of energy from the USSR to Eastern Europe are two nuclear power plants to be built in the Ukraine. Given the likely leadtimes for commissioning these plants, there are thus no collective CEMA projects at the moment that will increase Soviet energy deliveries to Eastern Europe in any way during 1981-85.

Bilateral Dealings. The East European states collectively exercise no influence over the key decisions of how much oil the USSR will export, and what the delivery proportions will be among CEMA, hard-currency, and less developed countries markets. Decisions on exports to individual East

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European countries are arrived at through strictly bilateral negotiations in which the East European states are able to affect Soviet policy only marginally.

For several years, the Soviets have been telling the East Europeans not to expect significant increases in "planned" oil deliveries during the 1981-85 five-year plan period. On occasion they have warned that unless stiff terms are met they may be compelled to reduce the volume of deliveries. The evidence currently available suggests that the Soviets are largely adhering to this line and providing for little increase in oil deliveries for 1981-85 above the 1980 level. The Soviets have tempered their position somewhat by a willingness to discuss marginal deliveries above the 1980 level that would be paid for in hard goods or hard currency. In the negotiations about the USSR's 1981-85 trade agreements with individual East European countries, there are some recent signs that there may be some flexibility in the Soviet position, although the Soviets so far appear to have made only small concessions on the volume, price, or method of payment.

Currently, it appears that the Soviets intend to intensify rather than relax the oil price pressure on their East European clients during 1981-85. They will probably increase the share in total oil deliveries of so-called "above-plan" oil, which must be paid for in hard currency or goods salable for hard currency (that is, hard goods), and they have shown signs of unwillingness to agree to predetermined prices for such oil. They have been seriously considering moving from the existing five-year base to a three-year base (or even shorter period) for calculating the lagged average world market price they use in setting the yearly CEMA oil price. This would raise the price of Soviet oil still closer to the level set by the Organization of Petroleum Exporting Countries (OPEC). There have also been signs that the Soviets might insist on receiving more hard goods for "planned" oil delivered under the five-year agreements. In addition, they have generally been very unreceptive to requests from the East Europeans for credits over the 1981-85 period, although there have been recent reports that they may be prepared to help the Poles with ruble credits.

Policy Dilemmas

If the Soviets are unprepared fully to meet rising East European oil needs, or to meet them at a cost affordable to Eastern Europe, they are in effect telling the East Europeans both to cut back economic growth and consumption and to find oil elsewhere. Fundamentally, additional supplies of oil can only be acquired by Eastern Europe now for hard currency—which in turn can only be earned through exports to Western industrialized nations or oil-producing states and their beneficiaries.

The East Europeans are being put in the position of having to increase exports to hard currency markets while reducing imports from the West as much as possible (even at the expense of sacrificing equipment and raw materials imports that in the longer run would promote greater hard currency exports). At the same time the East Europeans are being pressed to expand their hard goods trade with the USSR. The pressures on Eastern Europe to export more to the West *and* to the East are likely to be satisfied, if at all, only through a reduction in consumption.

This dilemma confronting the East Europeans also poses policy problems for the Soviets, who wish to avoid both political instability arising from consumer frustrations in their East European client states and a more Westward orientation in their trade. The Soviet response so far has been ambivalent. To some extent, the Soviets may believe that the CEMA energy program will satisfactorily resolve the dilemma. The Soviets unquestionably also feel that they have already made major sacrifices to meet East European energy needs, and they resent having to do even more to support living standards that they perceive to be higher than their own.

In principle, the Soviets favor strengthening intra-CEMA trade ties and reducing East European dependence on Western trade. But even as Moscow has increasingly pressured the East European states in recent years to direct more trade toward the USSR and to limit their indebtedness to the West, it has tolerated new East European trade arrangements with the West. To be sure, Moscow's tolerance is especially evident in areas that have helped promote specific Soviet political or economic objectives—such as enhancing the prospects for Soviet arms control initiatives or facilitating the transfer to the USSR of Western technology. The Soviets, however, have tended to look the other way rather than meet East European hard currency borrowing needs themselves when this has been the only option.

CEMA and the Oil-Producing States

The clear and present need of Eastern Europe to supplement Soviet oil with growing OPEC deliveries, and the Soviet political and economic stake in the satisfaction of this need, are the factors that give the USSR even today such a critical interest in assuring rising CEMA imports of oil from other oil-producing states. This interest will further intensify as the USSR's own oil consumption is increasingly constrained by falling oil production.

The idea of a joint approach by the CEMA countries to the oil-producing states goes back at least to 1971, and in 1975 CEMA signed cooperation agreements with Mexico and Iraq, although so far nothing much appears to have come from these agreements. In 1978 the notion of a collective CEMA

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approach to the oil-producing states was elevated to a declared policy objective in the CEMA energy Target Program. The Soviets have probably made the greatest effort to coordinate and control activities in the lucrative and politically sensitive area of arms trade and military assistance. In other economic areas, however, joint CEMA collaboration with oil-producing countries is more problematic: there have certainly been some attempts at it, but often there appears to be either no collaboration or outright competition.

Even if Eastern Europe turns more to the West or the Middle East to earn the hard currency needed to purchase additional quantities of oil, its overall energy dependency on the USSR will not be substantially affected. Eastern Europe gets almost all its natural gas, increasing volumes of electric power, and (with the exception of Romania) the major share of its nuclear-related technology imports and all its nuclear fuel from the USSR. Natural gas deliveries will rise in the future, and nuclear ties with the USSR will in time become critical for a majority of East European countries. The point at issue is thus not declining dependency, as some observers have argued, but the degree of *leverage* that a strong persisting dependency will actually provide the Soviets in a situation in which attempts to exploit it could undercut the USSR's own prospective gains from economic integration or threaten political stability in Eastern Europe.

Outlook: Soviet Energy Policy and Political Instability in Eastern Europe

Moscow is obviously concerned about the possibility of political instability in Eastern Europe (especially in Poland, which is probably the country most vulnerable to mass upheaval), and is prepared at least to listen to the argument that failure by the USSR to satisfy fuel demand in one or another country could precipitate a crisis. Soviet leaders, however, have heard this argument before, and are probably disposed to interpret it in the first instance as a sign of unwillingness on the part of their allies to shoulder a fair share of the burden. Nor does it necessarily follow that the Soviet leadership will be prepared to make concessions on fuel deliveries even if they are convinced there is a threat of instability. There are, after all, limits to disposable Soviet fuel reserves.

Under certain conditions Soviet leaders may be prepared to go along with a leader such as Hungary's Kadar, who attempts to employ a muted nationalism as a means of getting people to suffer willingly and quietly. But when push comes to shove, the Soviets are as likely to demand that East European regimes strengthen "discipline" or undertake other political countermeasures aimed at coping with impending instability as they are to attempt to buy it off with more fuel or credits.

Soviet policymakers will probably regard having to use military force to suppress disturbances in Eastern Europe as undesirable. But, under the conditions that are likely to exist in the first half of the 1980s, there will be a limit to the price they will be willing to pay to preempt this eventuality, even if it were to occur in Poland, where the costs of military action could be high.

The most likely way in which Soviet energy-related behavior might help to precipitate a crisis in Eastern Europe would be through a number of possible miscalculations. There is a reasonable likelihood that the Soviet commitment undertaken in 1979 to maintain oil deliveries to Eastern Europe at the 1980 level during the 1981-85 period, upon which East European production and foreign trade plans for 1981-85 will be based, may be predicated upon the assumption that Soviet oil production can also be stabilized or even slightly increased over this period, rather than decline by 2 to 4 million barrels per day as we predict.

The Soviets may also have miscalculated the possibilities for implementing the CEMA Target Program:

- The conservation potential in Eastern Europe involves high costs and may not be realized.
- Coal production may be much harder to increase than the Soviets believe (with the added danger of unrest among hard-pressed coal miners).
- Nuclear power plants almost certainly will not be commissioned as scheduled.
- East European hard currency export earnings could fall below anticipated levels.
- Both the East European states and the USSR could have a more difficult time acquiring OPEC oil even at world prices, much less on concessionary terms, than they may have bargained for—as 1979-80 negotiations already suggest.

The Soviets may also miscalculate energy-induced political developments in Eastern Europe. In their willingness to see living standards lowered in the region if need be, Soviet policymakers may misjudge the tolerance level of East European populations. They may also miscalculate the degree of effective control and managerial competence exercised by East European regimes in coping with their energy problems. It is highly questionable, for example, whether the Polish leadership even has a real energy policy.

There are some elements of flexibility in the situation, however, that may ease the pressures on Soviet policymakers. Energy-produced deprivations felt by East European populations to some extent are measured by comparisons with living standards in the West, and these may also be

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stagnating or declining in the 1980s. In addition, the Soviets have the option of permitting or encouraging East European governments to accept higher hard currency debt service ratios. Assuming Western lenders could be found, such borrowing would provide temporary relief, and—in the case of Poland—it might be repaid through an expansion of coal or electricity exports to Western Europe. Finally, the Soviets have the option of sacrificing their own domestic needs, at least temporarily, in order to supply an East European country in desperate straits with more natural gas, oil, or credits with which to purchase oil on the world market.

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Soviet Energy Policy Toward Eastern Europe

Introduction

Historically, the Soviet leadership has placed high priority on retention of Eastern Europe as a buffer zone and potential springboard for military action or pressure against Western Europe, on assurance of rule in the region by Communist leaders who will follow domestic and foreign policy lines acceptable to the USSR and who will vigorously combat trends inconsistent with the demands of "proletarian internationalism," and on enhancement of Soviet economic returns from relations with the region. This concern for Eastern Europe is a constant element in Soviet policy, but the circumstances in which it is expressed are changing.

Present Uncertainties. President Leonid Brezhnev's imminent departure from the scene, followed by a succession shakeup in which other members of the Soviet gerontocracy will probably also be replaced and in which power is likely to be more dispersed within the "collective leadership," could well weaken the Kremlin's sense of purpose and resolve in dealing with Eastern Europe. This was the pattern in 1953-57, following the death of Stalin, and in 1964-67, after the removal of Khrushchev.

In Eastern Europe today there is probably more uncertainty about future Soviet behavior than there has been for many years. At the same time, the character of relations between the USSR and its East European client states has changed. What was once little more than colonial domination has gradually evolved into a form of highly asymmetric interdependency in which the East Europeans do exercise some autonomy and bargaining leverage, or—in the case of Romania—even defiance of the Soviet Union on major policy issues. From the Soviet standpoint the evolution of other East European states along the Romanian path is a possibility that cannot be lightly dismissed. The post-1968 Soviet campaign to "integrate" the Communist countries not only economically, but politically and militarily as well, testifies to Soviet perception of their changed relationship with Eastern Europe.

Eastern Europe will provide critical tests for Soviet policy in the 1980s, just as it has in previous decades. There is growing potential for political instability in the region. In Poland, a weak and drifting leadership confronts a dissatisfied working class population, a broad range of oppositional groups, and a nationalistic Catholic Church whose ties with the population have been even further strengthened by the election of a Polish Pope but whose restraining influence could falter if a strong and moderate successor to Cardinal Wyszynski does not emerge. In Hungary, Czechoslovakia, and Bulgaria presuccession or succession maneuvering could produce instability within the leadership and undercut the ability of regimes to cope effectively with public dissatisfaction. Ethnic conflicts continue to smolder in Czechoslovakia and Romania and represent a potentially serious challenge to the Yugoslav leadership. Moreover, most countries along the southern tier of Eastern Europe still harbor territorial grievances against one another.

The Role of Economic Issues. Economic issues are likely to generate situations in Eastern Europe that will severely tax the Soviet leadership. All of the countries of Eastern Europe face a decade of sharply reduced economic growth in the 1980s. We anticipate that between 1980 and 1985 GNP will grow at an annual average rate of less than half that of the 1970s. The prospect of such a drop in growth causes great concern on the part of East European leaders. They are aware that the impressive gains of the 1970s have created high expectations for continued improvement in living standards. Sharply reduced growth will be produced by long-term internal economic trends, foreign trade constraints, and major problems of energy supply.

Demographic factors will severely limit the opportunity to increase growth through expanding the labor supply. The working-age population will be increasing at a declining rate in Czechoslovakia, East Germany, and Poland in 1981-85, and will actually decline in Bulgaria and Hungary. Only in Romania will the rate increase. Labor shortages will be aggravated by the

diminution of external flows of redundant agricultural labor to the cities and towns.

The East European regimes may hope to offset tightness in the labor supply by accelerating capital investment. The scope for action, however, is sharply limited by the rise in consumer expectations and the need to deal with increasingly serious external financial strains.

Only major improvements in efficiency can stave off economic stagnation in the face of labor, investment, and energy constraints. Yet such improvements cannot be attained without structural economic reforms. East European regimes have, on the whole, been extremely cautious in approaching the whole issue of economic reform—and for good reason. Past experience has shown that economic reform carries with it a substantial risk of political liberalization. Except perhaps in Hungary, major relaxation of central control seems most unlikely. Indeed, as economic problems intensify, so may the tendency to tighten centralization, reflecting a natural urge to avoid experimentation in times of stress. The responses of East European leaders to growing economic problems in the past few years have consisted largely of centrally directed cuts in imports and investment and the selective imposition of price increases. So far, the ruling groups—with the partial exception of Hungary—have not been prepared to accept widespread market determination of prices and allocation of resources.

East European economic prospects are tightly constrained by the extent to which needs for imported Western equipment, industrial raw materials, technology, and, in some instances, grain, can be met by exporting to the hard currency market, and by the need to service a steeply rising hard currency debt that had reached \$50 billion by the end of 1979. Eastern Europe's position in the world economy has deteriorated markedly in recent years, and this trend is likely to continue in the 1980s.

The large increases in imports from the West in the first half of the 1970s—which were viewed by many as crucial to East European economic development and modernization—have slowed appreciably. East European governments have been compelled to order this curtailment in order to bring the explosive rise in hard

currency debt under control. The ongoing requirement of keeping such debt within manageable bounds will continue to restrain growth in East European imports from the West. At the same time, the substandard quality of East European manufactured goods and Western trade barriers have kept hard currency exports below desired levels.

On top of other factors, the rapidly shifting world energy balance promises to make the decade of the 1980s substantially more difficult for the economies of Eastern Europe. In most of the East European countries, energy shortages are likely to account for at least half of the decrease in economic growth. Energy availability in each of the countries of Eastern Europe is determined by domestic production, net imports from other Communist countries, and net imports from the West. Domestic production of energy varies widely among the six countries. Only Poland and Romania are able to meet most of their energy needs through domestic production. All of the countries except Romania now acquire most of their oil and natural gas from the Soviet Union. Thus Soviet deliveries of oil and gas have been a critical energy source for most of Eastern Europe. Efforts during the sixties and seventies to "modernize" energy consumption have reduced the share of coal in total energy consumption in every country except Romania, and have raised significantly the relative shares of oil and gas. At the same time, these efforts have increased each country's dependence on imported energy sources.

Abundant and cheap Soviet energy imports were the basis for most of the growth of East European energy supplies over the past decade or so. The need to expend hard currency on energy imports has been small, accounting in most of the countries for only a few percent of total hard currency imports. However, depleted reserves and the increasing opportunity cost of supplying East European needs will limit the quantity and raise the price of Soviet oil deliveries during the 1980s. The East Europeans will be increasingly forced to turn to the world market to meet their incremental oil needs, while also having to pay for Soviet oil more than they have in the past with goods that might otherwise be sold in the West for hard currency.

"Consumerism" and nationalism provide the bonds of allegiance, such as they are, that link most citizens with regimes in Eastern Europe—although stability is also reenforced by apathy, the inertia of three decades of Communist rule, and the fact that a majority of East Europeans have never experienced an alternative to Communism. With the substantial rise in living standards in the first half of the 1970s, expectations have also risen, and the evidence clearly indicates that East European leaders—especially in Poland and East Germany—are acutely aware of these public expectations. The risks of failing to satisfy public demands have already been well illustrated by the riots in Poland in 1970 and 1976, strikes in Romania in 1977, reported work stoppages in Hungary in 1979, and intermittent labor strife in East Germany over the past several years. Yet the new consumer demands probably cannot be met under the likely economic circumstances of the 1980s, in which stagnation or even an absolute decline in living standards is a strong possibility.

There are no easy answers to East European economic problems. The traditional "extensive" growth solutions of more labor and capital investment are becoming even less responsive to the requirements of "intensive" growth, and even less available, than they were in the 1960s. Efficiency, cost reduction, quality improvement, and greater competitiveness on foreign markets depend on capital investment, economic reform, and access to Western technology. But reform is severely constrained because it is seen as a threat to political stability. Technology imports are inhibited by mounting East European debt, difficult Western market conditions, and Soviet ambivalence toward East European trade with the West. In all East European CEMA countries, there are conservative elements who will continue to fight economic reform. The conservatives want to protect vested career interests but also to avert the risk of political destabilization, despite the likelihood that the absence of serious reform over the longer run will be more destabilizing.

The balance of economic gain and loss has always been central in defining the East European-Soviet relationship. Outright exploitation by the USSR of Eastern Europe in the Stalin era gave way in the latter 1950s and 1960s to transactions that on balance probably

avored the East Europeans. However, in the mid-1970s the pendulum began to swing the other way, as the USSR raised the prices it charged for raw materials and fuels. While the Soviets have a vital stake in maintaining a viable economy in Eastern Europe, they must also look to their own needs and interests

The Situation Confronting the USSR. Because of declining factory productivity, labor shortages, and steeply rising costs of raw materials and energy the rate of growth of Soviet GNP will probably decline to an extremely low level in the first half of the 1980s. If the precedents of the 1970s hold true, demands on resources to promote Soviet objectives in the Third World may also rise in the 1980s. This situation is generating increasing tension between the need to guarantee sufficient economic momentum in Eastern Europe to avert political instability and promote Soviet-East European economic integration and the need to stimulate growth in the Soviet economy and provide resources to support Soviet global aims.

Since the early 1970s underlying tensions in Soviet-East European economic relations have been most exacerbated by the steeply rising cost to the USSR of supplying Eastern Europe with energy. This increased cost results from the depletion of oil, gas, and coal reserves in the European USSR, the expense of developing new resources east of the Urals, and the need to transport fuel thousands of miles to the west. The cost has been greatly augmented by skyrocketing post-1973 world energy prices. As the price of OPEC oil has escalated on the world market, so too has the opportunity cost to the USSR of exported oil that it does not sell for hard currency. Every ton of oil transferred to Eastern Europe at concessionary prices or for "soft" goods deprives the Soviet Union of hard currency income that could be used to pay for increasingly costly imports of Western technology and grain urgently needed by the USSR. Oil exports alone have accounted for about 30 percent of total hard currency earnings in the 1970s.

The Situation Confronting Eastern Europe. The Soviets must also take into consideration the East European energy constraints. One legacy of Stalinism

in the more industrially developed East European countries was an excessive allocation of resources to inefficient extractive industries, aimed at providing inputs for autarkically developed energy and raw-material-intensive heavy industries. The shift in the fuel balance that occurred in these countries from coal to Soviet-supplied oil in the 1960s and 1970s did not fundamentally change matters. Instead, by encouraging the development of the chemical and petrochemical industries, it enlarged sectors even more dependent upon large infusions of nonindigenous natural resources, instead of encouraging industrial development which could use local resources. At the same time, an analogous pattern of industrialization has been sought by less developed countries such as Bulgaria, which have pursued modernization and equalization of living standards with other members of CEMA.

The possibilities of the East European countries meeting the rising energy needs generated by this pattern of industrialization through increasing domestic fuel production are limited and costly—although how limited and costly is subject to argument. Shifting back from oil to coal in the fuel balance would also be costly. Likewise, the cost of raising energy efficiency in the East European economy (which by Western standards is low) is substantial.

Yet, East European economic growth appears to be directly related to rising energy inputs, with living standards geared in turn to economic growth. To the extent that political stability and economic productivity are a function of consumption, they are both directly influenced by energy supply.

If the East European states are compelled to get oil from sources other than the Soviet Union, they may acquire some of it through barter trade, but they must pay for most of it with hard currency. The acquisition of hard currency through sales other than armaments depends largely, although not entirely, upon expanding trade with the West. Such trade, however, has been inhibited not only by Western recession and protectionism in the post-1973 period, but also by the noncompetitiveness of East European goods on the Western market. The poor quality of these goods arises from technological backwardness of East European industry and inefficiency of existing systems of planning and management.

Western technology can be imported to cure technological backwardness, but this exacerbates the already difficult balance-of-payments situation of most East European states. Economic reform is the indicated response to managerial inefficiency, but—as noted already—this is viewed by many East European and Soviet leaders as a threat to political stability. In any event, from the Soviet standpoint increased trade between Eastern Europe and the West beyond certain limits threatens to undermine the economic dependency of Eastern Europe on the USSR that complements military force in buttressing Soviet hegemony.

The Soviet Dilemma. The dilemma confronting the USSR will become increasingly severe if—as we anticipate—Soviet oil production begins to decline in the next several years. If the Soviet Union does not provide sufficient energy at a tolerable price to Eastern Europe, or does not make sure that Eastern Europe is financially able to pay for at least the minimum necessary oil imports from alternative suppliers, energy shortages and high costs will produce a decline in East European economic growth. At the very least this will damage the Soviet Union's own returns from CEMA trade, and at most it will trigger economically and politically costly instability in one or more of these countries.

Energy shortages have already become acute in Eastern Europe, and unanticipated contingencies (such as the bitterly cold weather of the 1978-79 winter or the forced closing of factories due to lack of fuel) could dangerously strain East European economic and political systems. It seems probable that whatever the Soviet response may be, Eastern Europe—like the USSR—is destined at best to experience very slow gains in living standards and possibly absolute declines.

If, however, the Soviets fail to sell for hard currency as much as possible of what will be a declining exportable surplus of oil, they will significantly limit their capacity to buy Western technology urgently needed to modernize their own economy and expand energy output, and to buy the feed grain needed to increase meat production. Such a failure could have serious consequences for labor productivity and public morale.

This paper examines how the Soviets have approached the East European energy supply dilemma to date, and outlines possible future contingencies that may affect the success of Soviet policies. The paper does not attempt to predict the outcome of Soviet-East European interaction in the energy field, which will be determined not only by Soviet perceptions, policies and actions, but by East European and third-party reactions as well—many of them unpredictable. The paper does take as its starting point, nevertheless, a set of "objective" energy-related issues and options which the Soviets must face.

Key Issues and Options. The following are questions which the Soviets must address:

- What are the chances of major economically induced political instability occurring in Eastern Europe? How much of a reduction in the standard of living will be tolerated without unacceptable political or economic disarray? What level of risk should the Soviet Union run in rejecting East European attempts to extort assistance through allusions to a loss of political control?
- What should Soviet priorities be in delivering fuels within and among the domestic, East European, Western (hard currency), and LDC markets?
- How much should Eastern Europe have to pay for energy deliveries? What prices should be charged for oil and gas? What prices should be paid for East European goods in return? Should credits be extended? What should be done about East European trade deficits?
- Which mechanisms, in addition to trade, should be employed to exact payment from Eastern Europe for maintaining or increasing Soviet energy deliveries? Can "cooperation" deals with East European investment in Soviet fuel extraction and transportation or in electric power generation and transmission be extended? Should oil- and gas-bearing territories be leased to East European producers? Should East European labor participate in Soviet projects? Should there be coproduction or East European specialization in the production of equipment for Soviet energy industries?
- What political tactics should be used to ensure maximum effort of East European countries in assisting Soviet energy production and delivery? What balance should be struck between multilateralism and bilateralism? How much uncertainty should East European states be left in with respect to future Soviet energy deliveries? How much bargaining should the Soviets accept?
- What changes should the Soviet Union strive to effect in the East European economies through employing energy leverage? Should their structures be altered? What about their fuel-energy balances? What should be done about energy consumption levels? Should changes be urged in economic planning and management?
- How should the structural pattern of Soviet energy deliveries to Eastern Europe be altered? How should the relative weight of oil, gas, coal, and electric power be balanced?
- How should the Soviet Union attempt to influence East European efforts to earn the hard currency needed to pay for supplementary non-Soviet oil deliveries (and, indeed, for some above-plan Soviet deliveries)?
- How should the Soviet Union react to East European hard currency balance-of-payments problems and indebtedness toward the West?
- In what direction should the Soviet Union attempt to point East European relations with the oil producing countries?

Obviously these questions are not necessarily posed in the manner in which they are perceived by the Soviets. The analysis below attempts whenever possible to clarify precisely how the Soviets do define the problem. Nor do the questions presuppose any specific model of Soviet decisionmaking—particularly that of the unitary rational actor. Finally, we should not assume that responses to the questions will necessarily be mutually consistent. Prior assumptions should not be made about the capability of the Soviet system to deal in some optimal way with the situation it faces. Particularly in the present case political leverage has its limits, and miscalculation is always possible.

The Overall Soviet Strategy

Energy and CEMA Integration. The Soviet leadership views the USSR's energy relationship with Eastern Europe in the context of its efforts to promote Bloc economic "integration." In the 1970s this relationship has been the single most important element defining the substantive content of economic integration. However, the significance of the energy issue transcends economics. Economic integration is seen by the Soviets as one of the three pillars—together with military and political integration—that support Soviet hegemony in this strategically vital region, and the manner in which the energy needs of the Soviet client states are satisfied—or not satisfied—is an important factor affecting their economic growth and domestic political stability.

Following the 1968 crisis in Czechoslovakia, economic intergration was steadily promoted by the Soviets as a means of strengthening bloc solidarity. The concept of integration, in contrast to Khrushchev's approach to CEMA, has been defined in principle to mean greater cooperation among the member states rather than the imposition of supranational planning and management. Integration has meant movement away from the traditional Stalinist pattern of autarkic national development; in the first instance through greater reciprocal trade among CEMA members.

The Soviet intention, however, has been to transcend trade relationships in order to take advantage of the structural complementarities of the economies of the CEMA countries and to promote specialization and economies of scale. The Soviets have also had in mind joint participation in projects as one possible mode of integration. A basic political motive behind integration has been to reduce East European dependence on trade with the West and increase dependence on the USSR, although Soviet spokesmen claim—unconvincingly—that the integration they have in mind will actually enhance rather than diminish economic relations with the West.

As in other areas of Soviet-East European relations, the integration effort has proceeded simultaneously along bilateral and multilateral planes. The main multilateral arena has been CEMA and its affiliated organs. The CEMA forum has been used by the Soviets primarily as a means of channeling bloc

discussions of economic strategy in the proper direction and of committing allies to agree in principle to various common economic activities. Bilateral relations provide the mechanism for establishing concretely who should get what, and at what cost—under conditions where the Soviets can privately bring their power and resources to bear, play off one partner against another, and make concessions deemed advisable. In both the multilateral and bilateral arenas decisions are reached through negotiation, although the Soviets, generally speaking, enjoy a greater bargaining position, while the East Europeans—with the exception in part of the Romanian—must fall back of the leverage provided by their own weakness.

Integration on the multilateral plane has been enshrined in a series of documents approved by CEMA during the 1970s. The 25th session of the CEMA Council, meeting in Bucharest in July 1971, approved a long "Complex Program for Further Deepening and Perfecting Cooperation and Development of Socialist Economic Integration among the CEMA Member Countries." The Complex Program detailed broad range of areas of projected multilateral economic cooperation in planning, production, resource development, finance, and scientific-technical collaboration, and provided deadlines for the elaboration and coordination of implementing agreements.

In June 1973 the 27th CEMA session agreed that a so-called "Coordinated Plan of Multilateral Integration Measures for 1976-1980" would be prepared, which would bring together material, financial and labor resources specifically allocated to community projects in the national five-year plans, thus constituting something resembling a CEMA five-year plan (the first of its kind). This Coordinated Plan, which encompassed a number of specific projects including the Orenburg natural gas pipeline, was confirmed in June 1975 at the 29th CEMA session.

At about this time the idea began to be discussed of formulating joint CEMA approaches to broad economic needs that cut across ministerial and branch boundaries. This concept, which received Brezhnev's benediction at the 25th Congress of the Communist Party of the Soviet Union (CPSU) in 1976, eventually culminated in the approval of three "Long-Term

Target Programs of Cooperation" in the areas of power, fuel and raw materials, agriculture and the food industry, and machine building at the 32nd CEMA Session in June 1978, and of two additional target programs in transportation and consumer goods at the 33rd CEMA session in June 1979.

Talk about integration should not, of course, be accepted simply at face value. There has been much resistance in Eastern Europe, most vocally in Romania to specific proposals justified in the name of integration. Soviet behavior itself has been ambivalent, especially when the USSR's direct economic interests in trade with the West have been concerned. There has been much slippage in the adoption of projected measures, and projects have developed slowly. Foreign trade flows have not immediately reflected the ostensible aim of accelerating intra-bloc economic relations.

Nevertheless, there can be little doubt that the Soviet leadership has taken intergration seriously, as the framework for the USSR's economic ties with bloc countries. Integration provides the means of introducing the hallowed principle of *planning* into bloc economic ties. It also broadens the base for military production, provides a potential mechanism for establishing certain common approaches to "social goals," and creates areas where the Soviets can press the East Europeans to share the foreign aid burden. It may also help improve the quality of goods the USSR imports from Eastern Europe, and, as Kosygin stated at the June 1979 CEMA session, it serves the broad political goal of strengthening the "material foundation of our community." In a series of authoritative policy statements over the years, the Soviets have committed themselves to the integration ideal.

If the Soviet energy relationship with Eastern Europe is viewed as part of the broader process of integration, cooperation to solve specific problems has from the outset been viewed in terms of energy. Even in 1971, the Complex Program focused heavily on energy problems, energy projects, and the linkages between the machine-building industry and energy. In his annual speech to the CEMA session delivered in June 1977, Premier Kosygin concentrated almost exclusively upon energy issues. Of the five "target programs" approved in the past two years, which are the

current operational embodiment of integration, the power, fuel and raw materials program is the central one, with the machine-building program structured almost entirely to meet needs of the energy sector.

Continuity and Change in Soviet Aims. In sharp contrast to the flux in domestic energy policy in the 1970s, Soviet energy policy toward Eastern Europe during the same period has been characterized by a remarkable degree of continuity and consistency. This stability is not surprising since the policy has been shaped in response to an unchanging set of fundamental Soviet interests: to put the brakes on Soviet oil exports to Eastern Europe, to recoup the costs of Soviet fuel deliveries as much as possible, to assure, nonetheless, that East European energy needs are met as much as possible, and, at the same time, to strengthen integration.

Most of the basic aims of the 1971 Complex Program are still espoused by the Soviets today. These include:

- Establishment of a common CEMA long-term energy strategy.
- Implementation of the strategy through multilateral as well as bilateral cooperation.
- Forcing the East Europeans to pay their share of the rapidly rising costs of extraction and transportation of fuels.
- Achievement of maximum energy conservation in Eastern Europe through more efficient use of energy and establishment of "rational" norms of energy consumption.
- Reduction of rates of oil consumption, in part through cutting back on the use of oil as a boiler fuel and upgrading secondary refining capacity to produce more light products from each ton of oil.
- Maximum exploitation of all local energy resources in Eastern Europe, including oil and hydropower—but above all coal.
- Rapid development of nuclear power.
- Linkage of the East European and Soviet electric power networks and expansion of the grid capacity to use electricity more efficiently and reduce capital investments.
- Adoption of joint measures in the machine-building sector to promote energy objectives.

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These aims have been constantly pursued by the Soviets, but there have been shifts over time in emphasis and in approaches to the realization of individual objectives. The shifts have occurred largely because of changing Soviet perceptions of their own economic interests, but also partly in response to East European positions. As will be discussed in more detail below, the important shifts include a retreat from large-scale multilateral collaboration in the hydrocarbon area, a reassessment of the desired overall pattern of "cooperation" activities, a greater stress on the development of non-energy-intensive industry in Eastern Europe, and a sharper focus on expansion of electric power production to solve the East European energy problem—particularly on rapid acceleration of nuclear energy.

Negotiation of a Common Bloc Energy Program. Negotiation of a common energy program for the USSR and its East European allies has taken place through a contrapuntal interplay of bilateral and multilateral contacts between the Soviets and their East European clients. The key bilateral contacts have been the summer Black Sea meetings between Brezhnev and individual East European party first secretaries, and meetings involving the chairmen of the respective councils of ministers, the deputy chairmen responsible for CEMA affairs, and the chairmen of the state planning committees. The purpose of these meetings has been to negotiate the yearly trade protocols, five-year agreements, and now 10-year cooperation agreements. Extraction of the most basic East European commitments in principle to Soviet energy policy aims, as well as protracted haggling over deliveries and other matters, are taken care of bilaterally, rather than collegially.

The details of the Soviet-sponsored energy program, which necessarily—if implicitly—involve issues of principle, have been hammered out in the CEMA institutional framework. Two points should be made here. First, the Soviets have controlled the CEMA bureaucracy and have placed Soviet officials in most of the strategic posts concerned with energy policy-making. The most important body in this connection has been the Committee for Cooperation in the Area of Planning Activity, which has exercised overall responsibility for implementing the 1971 Complex Program,

drawing up the 1975 Coordinated Plan, and elaborating the 1978-79 target programs.¹ It has been chaired by Nikolay Baybakov, Chairman of the USSR Gosplan. Arkadiy Lalayants, the deputy chairman of Gosplan responsible for energy affairs, was leader of the working group that prepared the draft of the energy-target program adopted in 1978, while the chairman of the subgroup on fuel, power, and geology of this working group was in turn the chief of Gosplan's Fuel Department.

The CEMA Secretariat, which provides technical assistance to the Planning Committee and the functional Permanent Commissions of CEMA, is also headed by a Soviet representative, Nikolay Fadeev. The relevant Permanent Commissions (for Utilization of Atomic Energy, Electric Power, Oil and Gas Industry, Coal, Geology, Transport, Scientific and Technical Research, and Foreign Trade), are largely if not exclusively chaired by ministers or deputy heads of the corresponding Soviet ministries.

Second, the available evidence indicates that despite their domination of key energy-related posts in the CEMA institutional structure, the Soviets have been compelled by the principle of unanimous voting and the "interested party" rule to engage in protracted negotiations as they have attempted to push their strategy through CEMA. Thus the crystallization of a Bloc energy program has been a long, drawn out affair.

At the 29th CEMA session in June 1975, the Chairman of the CEMA Permanent Commission on Electric Power, Petr Neporozhnii (USSR Minister of Power and Electrification), proposed to the annual top CEMA meeting the elaboration of what were to become the target programs. A year later, the Chairman of the Planning Committee, Baybakov, was urging that preliminary drafts of the target programs be completed by the end of 1976, so that they could be reviewed by the Planning Committee "at the beginning of 1977," presumably with the object of final approval of the target programs at the 31st CEMA session in June 1977.

¹ For a discussion of the Committee's structure and operation see Nikolay Baybakov, *Ekonomicheskoye sotrudnichestvo stran chlenov SEV (ESS)*, 1976, No. 3, pp. 8-12.

This schedule would have meant that implementation of the energy and other target programs might have begun during the 1976-80 five-year-plan period. But only a progress report on the drafting of the target programs was delivered at the 31st CEMA session; final approval was delayed a year longer, until the 32nd session in June 1978. The Energy Target Program that this meeting approved, however, was actually a list of agreed projects on which two or more member countries would collaborate. The all-important details of these projects were still being negotiated in 1979.

Thus, it will have taken five to six years simply to reach agreement on the content of the program, and execution of it will not really get under way until the 1981-85 five-year-plan period. The delay has been caused partly by the bureaucratization of the CEMA and individual country planning processes, but still more by fundamental disagreements between the USSR and its partners.

What the East Europeans Have Wanted. East European needs vary, depending on the resource endowment of particular countries and the current political concerns of their leaders. Nevertheless, it is possible to identify a common set of demands that the East European countries have pressed—either directly or obliquely—in negotiations with the USSR over the Bloc energy program.

First, the East Europeans usually argue implicitly that East European energy problems cannot be solved by developing indigenous natural resources. Poland, with its coal resources, does shade this point to a degree. But with the exception of Romania (and, of course, Yugoslavia), none of the other East European countries seriously seeks “energy independence” from the Soviet Union. On the contrary, their aim is to involve the USSR as much as possible in the solution of Eastern Europe’s energy supply problem.

Second, the East Europeans have strongly emphasized over the years, at CEMA sessions and elsewhere, that *the* central element in the Bloc energy program has to be deliveries of energy and raw materials among the member countries—that is to say, largely transfers from the USSR (with the possibility also of some coal exports from Poland).

Third, the East Europeans have urged that the program address their near-term energy problems, which are seen as critical, requiring immediate attention. Indeed, a strong case can be made that the East Europeans have been perhaps more eager than the Soviets that a Bloc energy program—suited to their interests—be adopted and implemented.

Fourth, the East Europeans have sought long-term guarantees within the CEMA framework for their energy supply. Over and over, East European spokesmen have appealed for “stability” and “calculability” of energy supply. Long-term commitments for energy delivery have been constantly presented as an essential condition of effective national economic planning and growth.

Fifth, the East Europeans have naturally attempted to keep the cost to them of Bloc energy measures within what they regard as tolerable limits. There has thus been continual contention within CEMA over how to share energy costs.

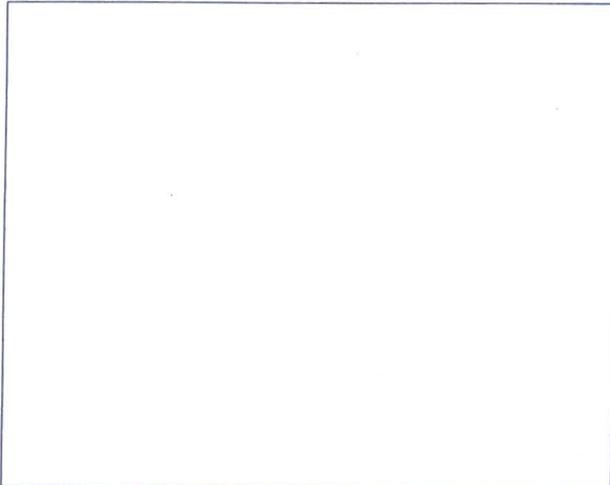
Sixth, discussion of the Bloc energy program has been linked by some member states to the aim of promoting “equalization” of their own level of economic development with that of the more developed members. This has been an important concern of Bulgaria and Romania.

Lastly, the East European states, to a greater or lesser degree, have sought in the negotiation of the energy program to preserve some degree of national autonomy, or at least room for maneuver in international economic relations. This political motive has, of course, been most manifest in the behavior of Romania, although it also appears to some extent in the outlook of Poland. All the East European states have attempted to protect their own hard currency export trade with the West from Soviet encroachment.

East European Tactics. The East Europeans’ key bargaining counter in negotiations with the Soviets over the terms of economic relations has been the implicit threat that too much Soviet pressure on East European living standards could incite the populace to revolt. Clear overtones of this negotiating strategem

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can be detected even in public East European utterances over the years. Not surprisingly, the Poles have been among the frontrunners in making this pitch but the East Germans, Czechoslovaks, and Hungarians also have not neglected it.



A more frequent East European ploy with which the Soviets have had to contend has been the following argument: "Yes, we agree with the Soviet position that we should do more to solve our own energy problem, and in fact we are already taking measures to do everything within our control to fulfill Soviet demands; but this will still not be enough to remedy the situation."² Or the East Europeans have used the tactic

² Thus, for example, at the 31st CEMA session in June 1977 the Hungarian spokesman declared: "We clearly recognize, as Comrade A. N. Kosygin commented in detail at the 30th and current sessions of the Council, that the CEMA member countries must to the maximum extent also utilize their own internal resources. I can inform you all that in the course of elaborating our energy policy and determining our needs for energy resources we take account of all of this to the fullest degree. In particular, we have considerably accelerated our exploration work in discovering new domestic energy and raw material resources. We have increased the share of capital investments. We will develop energy-intensive branches of production in a more measured fashion—in the spirit of the proposals expressed by Comrade A. N. Kosygin. We have considerably increased allocations to measures for the rational utilization of energy and are preparing a special resolution of the government on the broad introduction of measures to economize on energy. [But] our national conditions are such that, despite all the internal efforts, we will be forced to increase the share of imports to satisfy our energy and raw material needs. Therefore we regard it as completely justified and, moreover, unconditionally necessary to accelerate the elaboration of the target program aimed at satisfying raw material and energy needs, and to devote maximum attention to the joint, most effective solution of the problems arising in this area." (ESS 1977 No. 4, p. 55).

or agreeing "in principle" to some element of the Soviet-proposed program, but holding back on committing resources to it. Thus, for example, at one point in Bloc energy program talks the East German Government reportedly took the position of expressing interest in the expansion of nuclear power generating capacity, adding, however, that East Germany was unable in the foreseeable future to make any significant contribution to this effort. In this connection the East European states have, on occasion, simply exercised their formal right to declare themselves not "interested" in participating in specific Soviet-proposed energy projects.

The East Europeans may also have been able—or at least may have attempted—to exercise influence over the Soviets by trading support on nonenergy issues for Soviet concessions in the energy field. The frequent conjunction of declarations about energy issues and foreign policy in statements following joint Soviet-East European talks points to one area in which the Soviets have probably sought East European backing. It is difficult, however, to establish what sort of tradeoffs—if any—have occurred.

The Soviet Response to East European Demands. In the official Soviet line on Bloc energy policy presented by Kosygin at successive CEMA Council sessions there has been remarkably little change over the years, and little concession to the East European priorities discussed above. When concessions have been made, they have been made privately and bilaterally. Kosygin has not publicly accepted the premise that the solution of the East European energy problem is basically a Soviet responsibility. The themes that are frequently repeated in his speeches point in the opposite direction, that is, to the conclusion that the Soviets will help, but that the basic responsibility lies with the East Europeans themselves. Thus Kosygin talks about conservation, the role of coal in the energy balance, the upgrading of secondary refining capacity, nuclear power, synthetic fuels, the unified electric-power grid, and renovation of electric-power generating equipment—all areas in which Soviet assistance is possible, but in which the main burden must be borne by the East European economies.

The central element in the energy program Kosygin has urged at CEMA Council sessions is *not* interstate deliveries of energy and raw materials (which figure little in what he has had to say), but the need for more rational energy consumption in Eastern Europe. Even when, at the 33rd CEMA session in June 1979, he announced a 20-percent increase in Soviet deliveries of "fuel and energy resources" to East European CEMA members during the 1981-85 five-year-plan period, he immediately added: "But, of course, we must not count on meeting growing demands just on an extensive basis, by increasing production. This no longer meets the interests either of the countries supplying raw materials and fuel, or of the countries receiving them. Therefore, we are devoting everincreasing attention to the qualitative aspect of the matter—to the rational and economic use of resources and the creation of new sources of energy and materials."

By the same token, within the CEMA context Kosygin publicly has shown little interest in dealing with the near-term energy supply concerns of his East European clients. If anything, as these concerns have become increasingly pressing in the last few years, the Soviet emphasis has shifted to activities whose payoffs lie increasingly further downstream. The returns from nuclear power, the upgrading of oil refining, synthetic fuels, or improved efficiency in power generation will not have an appreciable impact on the East European energy balance for another five to 10 years.

Consequently, the long-term guarantee of energy supply to be provided within CEMA, as it has been perceived by the East Europeans on the one hand and by the Soviets on the other, has been significantly different. When the East Europeans talk about "security," "stability," and "calculability" of energy supply, they are referring to the assurance that there will be a certain amount of oil, gas, and electric power in five or 10 years. While Kosygin does not take issue with this way of looking at the matter, he nevertheless poses the question somewhat differently: the true guarantee of energy supply lies in the very fact that provision for it is being made through a process based on joint *planning*, which maximizes the effects of all the subprograms included within the overall CEMA energy effort. This formulation by no means denies the vital role of Soviet oil and gas deliveries in the past (which the Soviets

never fail to mention), but it does not place them in the foreground in the future

The CEMA Target Program

The Target Program on Energy. The 32nd session of CEMA, held in Bucharest in June 1978, approved a "Program of Cooperation to Meet the Economically Justified Needs of CEMA Member-Countries for the Most Important Types of Power, Fuel and Raw Materials During the Period up to 1990." This so-called "Target Program" represented the outcome of three years of negotiation of the Bloc energy program and now provides the framework for collective energy measures projected for the 1981-90 decade. The Program contains both general principles, and subprograms and individual projects. (Industrial raw materials are treated separately.) The Program in its entirety is classified material, although many of its main features have been publicized

The general principles of the Target Program for energy are as follows:

- There should be a maximum attempt by each member country to utilize its own resources, especially coal and hydropower, to produce electrical energy and to raise the share of electric power in the energy balance.
- Nuclear power development should be accelerated through coproduction and specialization of production of nuclear power plant equipment.
- Geological exploration for oil, gas, coal, and shale should be intensified, and steps should be taken to accelerate exploitation of reserves already discovered.
- A broad range of measures should be undertaken to improve conservation and the efficient utilization of energy resources.
- Measures should be undertaken to improve the structure of the economies of the CEMA countries from the standpoint of energy consumption, through mutual cooperation in the location of new energy-intensive industry.

- A greater attempt should be made to import oil and gas from developing countries, through improving economic cooperation with these countries.
- Interested CEMA member states should cooperate in the development of Mongolian energy resources.

These general principles are translated into more concrete measures of cooperation in different energy sectors

In the electrical energy field, the Target Program covers expansion of the number of coal-fired power plants and cutback in oil-fired power generation, accelerated development of nuclear power, expansion of hydroelectric generating capacity, joint construction of power facilities utilizing Polish coal, joint construction of energy complexes in Mongolia, and extension of the CEMA unified electric power grid.

In the oil and gas area, cooperation measures do *not* extend to meeting fuel needs related to power generation. Moreover, it is clear that the volumes and terms on which the USSR delivers oil and gas to other CEMA member countries are to be determined strictly through bilateral negotiations. Multilateral cooperation apparently is envisaged in the areas of enhanced recovery efforts, geological exploration, deep drilling, offshore development in the Baltic, Black, Barents, and Kara seas, collaboration with oil-producing (LDCs), secondary oil refining, synthetic fuel production, and specialization in the production of energy-intensive chemical products.

In the energy machinebuilding field (which is elaborated upon at greater length in the companion target program on CEMA cooperation in machinebuilding), the Target Program provides for cooperation in such areas as equipment for mining, drilling, oilfield operation, power engineering, oil refining, chemical industry production, nuclear power production, oil and gas pipeline construction, and geological exploration.

In the field of scientific and technical cooperation in power engineering, the Target Program singles out collaboration in improving the efficiency of coal-fired thermal power plants, work on 1,000-megawatt water-moderated reactors, development of a breeder reactor,

development of thermonuclear power plants, development of magnetohydrodynamic (MHD) generators based on gas, liquid fuel or coal, and development of solar, wind, and geothermal sources of energy. In the coal industry, the Target Program dwells on technology for deep mining and handling of geologically complicated formations, strip mining, and coal gasification, liquefaction and beneficiation. Areas of interest in the oil and gas industries include cooperation in producing equipment for deep drilling, fitting out oil and gas fields, construction of pipelines, manufacture of high pressure linepipe, and secondary refining of oil. Cooperation projected in the geology field includes work on oil, gas and coal forecasting, surveying, geological and geophysical exploration, and utilization of earth satellites for exploration. Finally, in the field of energy utilization, the Target Program focuses upon developing less energy-intensive equipment and equipment for exploiting secondary energy resources.

In all of these fields taken together, the Target Program provided for the elaboration and adoption by "interested" member states of approximately two dozen specific projects, some of which were in turn broken down into several subprojects. The Program specified the countries that had declared an "interest" in participating in elaborating the projects, the deadlines for preparation of agreements, and the CEMA organs responsible for working out these agreements.

Meaning of the Target Program. What is immediately apparent is that the CEMA program that has finally been adopted represents an almost total victory for the Soviet position propounded by Kosygin at successive preceding CEMA sessions. The Target Program places the burden of responsibility for providing additional energy substantially on the East European states themselves, first of all by assigning top priority to electric power generation. The Target Program is primarily a scheme to produce more electricity in Eastern Europe. This goal is to be accomplished in the near term through the expansion of coal-burning thermal power generation, and in the longer run through nuclear energy. The priority assigned by the Soviets to nuclear power in the Target Program, as well as the demand that the East Europeans pull their

weight in nuclear development, is highlighted in Kosygin's speech to the CEMA session that approved the program. []

The Target Program is clearly seen as an electricity strategy by East European officials. For example, the Bulgarian Permanent Representative to CEMA, Rashko Draganov, has characterized the aim of the Target Program as that of bringing about fundamental changes in the energy balance of Eastern Europe: "The basic element of these changes is raising the share of electrical energy in final energy consumption with a simultaneous rapid reduction in the share of liquid fuel utilized in producing it. On this basis the task is maximally to draw local hard fuel, including low caloric fuel, into electrical energy generation and the satisfaction of energy technology needs." []

Secondly, the Target Program reflects the Soviet line in its heavy stress on conservation and efficient energy utilization. Many projects specified in the Program directly address this concern. These include projects dealing with the unified electrical grid, power machinery building, power plant construction, MHD research, the refining industry, fuel substitution, upgrading the energy efficiency of all types of machinery, energy transmission, secondary energy use, and the development of non-energy-intensive industry. []

Thirdly, and most importantly from the East European perspective, the Target Program responds only slightly to their critical concern over future Soviet energy deliveries. In the period of the 1976-80 five-year plan, there were two major CEMA projects that gave assurance of large-scale future Soviet energy deliveries to Eastern Europe: the Orenburg natural-gas-extraction-and-pipeline project (now being brought to full capacity), and the Vinnista-Albertirsa 750-kv high-voltage transmission line. This line, which can transmit 2,000 megawatts of power, has now been completed and significantly increases the capacity to transfer power from the Soviet to the East European electrical grid (and vice-versa). Although Hungary is the largest beneficiary of the line, East Germany, Poland, and Czechoslovakia participate in the project and will receive power from it; in this sense the project was a genuinely multilateral venture. The present Target Program has much less to offer. []

Significantly, this program includes *no* follow-on to the Orenburg gas project: there is currently no multilateral CEMA gas project on the books, although naturally this could change.³ If the large capacity gas pipeline project between West Siberia and Western Europe now being discussed is approved, it is possible that some of the construction work could be performed by East European (especially Polish) crews operating on the basis of some sort of CEMA agreement with payment in gas. But the only CEMA projects now included in the Target Program which explicitly involve energy transfer from the Soviet Union to Eastern Europe are the 4,000-MW Khmelnitskiy and Konstantinovka nuclear power plants, together with 750-kv lines that will link these plants to Eastern Europe. The Khmelnitskiy project, based on an agreement between Hungary, Poland, and Czechoslovakia on the one hand and the USSR on the other is scheduled to deliver half its power (2,000 MW) to the East European partner countries. The Konstantinovka project will deliver an equal amount to Bulgaria and Romania. According to the Target Program, deliveries are supposed to begin from Konstantinovka in 1983, and from Khmelnitskiy in 1984, but it is unlikely that the plants will be commissioned before 1986. (Construction had not begun at the end of 1979.) []

In other words, there are no major *collective* CEMA projects at the moment that will increase Soviet energy deliveries to Eastern Europe during the period of the 1981-85 five-year plan. The only way for the East Europeans to receive additional energy deliveries from the USSR in the CEMA context during 1981-85 might be through bilateral barter deals that individual countries might strike with the Soviets while negotiating Target Program projects in the field of oil and gas equipment manufacturing. []

This is not the outcome which the East Europeans had sought in negotiations over the Target Program. It seems apparent that in discussions in the mid-1970s there was the expectation—or at least hope—that multilateral agreement not only on electricity and gas, but above all on *oil* cooperation arrangements would be an integral part of the future Bloc energy program. Such cooperation, organized on a multilateral basis,

³ The Orenburg project itself appears to have been very hastily arranged during the winter of 1973-74. []

would have given the East Europeans a somewhat stronger collective claim on Soviet oil, and would have eased their long-term planning uncertainties.

This issue seems to have been decided against East European hopes at the 31st CEMA session in June 1977, where the Soviet draft proposal of what should be included in the Target Program ("Basic Elements in Principle of the Long-Term Target Program of Cooperation in Providing for the Economically-Justified Needs of the CEMA Member Countries for Fuel and Power") was accepted, apparently in competition with other drafts (almost certainly including one submitted by the Romanians).

Venting what was probably not only Romanian unhappiness with this turn of events, the Romanian, Premier, Manea Manescu, declared at the 32nd CEMA session a year later:

I wish to emphasize that in the areas of fuel, power and raw materials it is necessary to act decisively in realizing new measures of cooperation—the conclusion of inter-governmental treaties, long-term agreements and contracts for mastering the reserves of raw materials, fuel and power that exist in the CEMA member countries, for the purpose of increasing supplies and the very fullest satisfaction of the import needs of countries which have limited natural resources. This is the more necessary, taking into account the fact that in the target programs approved by us measures are not included for multilateral cooperation in areas vitally important for our national economies such as provision for needs of oil and gas, as was envisaged originally when it was agreed by us to elaborate the target program of cooperation to 1990 in the areas of fuel, power and raw materials.

This statement implies a complaint that the Soviets had doublecrossed their CEMA allies.

The Changing Soviet Attitude Toward "Cooperation". The failure of the Target Program to include large multilateral projects on Soviet territory

⁴ Several East European premiers observed in their speeches at the 1977 CEMA session that the Soviets had been the last to transmit their draft proposals on the Target Program to the other member states, and had done so only on the very eve of the meeting.

that would significantly increase the flow of Soviet hydrocarbons to Eastern Europe reflects a broader reappraisal by the Soviets of the concept of "cooperation" between the USSR and Eastern Europe. There is less talk about investment participation by the East European states in big multilateral projects on Soviet soil, and there has been a partial retreat as well from bilateral compensation projects on Soviet territory involving East European capital or labor. Instead, there is more emphasis now upon cooperation based on an industrial division of labor and the exchange of manufactured goods (especially machinery and equipment).

The Soviet assumption in the early 1970s was that the East European states should recompense the USSR for oil and gas deliveries by participating in the construction of additional production capacity in the Soviet Union. Thus, for example, Oleg Bogomolov, a leading Soviet spokesman on economic relations with Eastern Europe, observed in 1971:

The Soviet Union has signed agreements on cooperation in the oil and gas industry for 1971-75 (and in a number of cases for the subsequent period as well) with the GDR, Czechoslovakia, Hungary, and Poland, who will take part in the development of extraction of oil and gas, and in the construction of pipelines, while the Soviet Union will provide for an increase in the export of corresponding goods to these countries. . . .

In accordance with the Complex Program our country in 1972 must present proposals on possible volumes of export of oil and gas to the CEMA countries for the period up to 1980 and the conditions of cooperation of these countries in the development of the Soviet oil and gas industry.

The underlying principle here was *compensation* in fuel: the East European contribution was linked directly to a payback in oil or gas. In the multilateral arena, the East European investment and labor allocated to the Orenburg project was to be recompensed according to a formula confirmed in 1974 that assigned 15.5 billion cubic meters of gas annually to Eastern Europe from 1979 through 1990, with 2.8 billion going to Poland, Hungary, Czechoslovakia,

East Germany, and Bulgaria, and 1.5 to Romania. The other main multilateral energy project undertaken in the 1976-80 period, the Vinnista-Albertirsa high-voltage transmission line, completed in 1979, is repaying the participating East European countries in electricity in proportion to their investment contribution. []

Significantly, there have never been any multilateral oil compensation projects on Soviet soil, although there are some minor multilateral CEMA oil "cooperation" activities (mostly in Eastern Europe). Soviet pressure for investment, equipment, and labor participation in USSR oil production has always been exerted bilaterally. []

On the basis of a bilateral GDR-USSR agreement, "Cooperation Between the GDR and the USSR in Creating Additional Production Capacities in the USSR Petroleum Industry in the 1976-1980 Period," for example, East Germany's chemical machine-building sector was assigned the task of producing in East Germany and then erecting in the oil-producing regions of Tyumen Oblast 113 modular prefabricated plants for desiccating petroleum gases and 26 processing plants for removing gas, salt and water from crude oil. The 50 or so East German enterprises fulfilling the latter contract, it was said, "bear a great responsibility for the future supply of our economy with Soviet oil." In 1977 the East Germans reportedly were receiving 2.5 million tons of oil annually in return for investment of about \$640 million in Soviet oil production. []

Poland's main direct contribution to the Soviet oil industry has consisted of participation in oil pipeline construction. In 1979 the Polish firm Energopol completed construction of a 440-kilometer-long crude oil pipeline running from Novopolotsk in Belorussia to Mazheykskiy in Lithuania, and had still to finish eight pumping stations and a tank farm. In 1978 part of the Energopol crew began working on a new project, a 300-kilometer-long section of a crude oil pipeline between Novopolotsk and Surgut in West Siberia, plus three pumping stations. This project is scheduled for completion in October 1980. For both projects Poland is scheduled to receive 13 million tons of crude oil over a 15-year period. This oil will be purchased at CEMA prices, in addition to the annual volume projected by

bilateral Polish-Soviet trade agreements. At least some of the pipe is Polish-supplied, and the pumping stations were probably purchased abroad by Poland for hard currency. []

The main Czechoslovak involvement in the Soviet oil industry appears to have arisen out of an August 1975 Czechoslovak-Soviet agreement. In return for an unknown quantity of oil on unknown terms, Czechoslovakia is committed by the agreement to supply 32 oil pumping stations by 1990. []

Hungarian participation in Soviet oil production was established by a February 1976 protocol on Hungarian-Soviet cooperation in the oil industry, signed by Soviet Gosplan chief Nikolay Baybakov and Hungarian planning chief Istvan Huszar. According to the agreement, Hungary was to supply an instrument factory, data transmission system, pumps, automatic control components, electrical engine ring products, and oil transfer stations in return for an increase in Soviet oil deliveries of 200,000 tons annually. The deliveries specified by the agreement appear to have run only through 1980. Presumably Hungary had to purchase for hard currency much of the equipment delivered to the Soviets. []

Bulgarian participation, like Polish, has involved sending labor to the USSR to build facilities. In 1978 it was announced that Bulgaria would increase its role in the construction of oil and gas projects in the USSR. Apart from mention of work on gas compressor stations and a gas processing plant in Uzbekistan, no details of deals are available. []

All of the projects mentioned above were initiated in the mid-1970's, and linked with the 1976-80 five-year plans, although some of them will be completed well after 1980. []

In the middle of the current five-year-plan period there were some signs of continued Soviet interest in future East European participation on the same basis. In 1977, for example, the Soviets discussed a cooperation project for oilfield exploration in the Komi region with the Romanians—to whom the Soviets have not regularly supplied oil. In January 1978 the Soviets reportedly pressed the Poles to provide investment credits to the USSR in return for increased oil. At about this

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same time [redacted] the Soviets were demanding that Czechoslovakia increase its investments in the USSR in order to obtain additional supplies. [redacted] in December 1978 the Soviets insisted [redacted] that East Germany would have to invest heavily in extraction industry projects in the USSR to assure agreed-upon deliveries (including deliveries of oil), and would have to double this investment to compensate for increases above the agreed level. Included in this additional investment would be deliveries of goods imported by East Germany for hard currency.

[redacted]

This pressure appears to have carried over into 1979. The Soviet press noted that the economic cooperation protocol signed by Hungary and the USSR in July 1979 provided for "cooperation in building facilities in the USSR for extraction of petroleum," which earlier reports suggested had been insisted upon by the Soviets as a condition for increased oil deliveries in the 1981-85 five-year-plan period. [redacted]

During this same period, however, the Soviets were pushing even harder for approval of the CEMA Target Program on energy and elaboration of the projects foreseen by this program. Apart from the construction of the two nuclear power plants and high-voltage lines connecting them with Eastern Europe, the only project in the Target Program that appears explicitly to involve an East European commitment to anything on Soviet territory is one dealing with coal mining equipment and mechanized mine construction. In this case, the terms of final implementing arrangements are negotiated and agreed upon bilaterally, and the USSR could pay entirely or partly in fuel. The same applies to the other projects in the Program involving specialization in the production of energy equipment (for nuclear power, thermal power generation, coal processing, enhanced recovery of oil, oil and gas field outfitting, deep drilling, pipeline construction, secondary refining, valves, and automated telecommunications systems). [redacted]

[redacted] the Soviets might be interested in compensation arrangements for the production of oil extraction equipment, including technology for enhanced recovery. There is nothing in the

Target Program, however, that suggests any *commitment* by the USSR to barter fuel in this fashion.

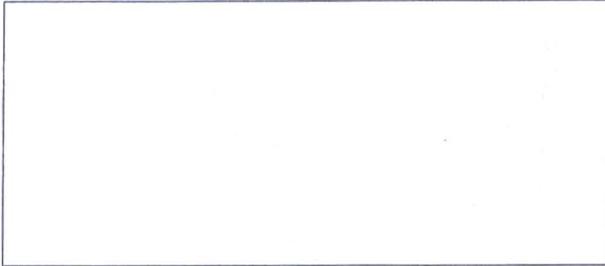
[redacted]

There is evidence, nonetheless, of frustration with the guaranteed energy-payback approach to "cooperation" and of drift within CEMA over the issue. In an article in early 1979 the Soviet head of the CEMA working group for preparing the draft energy Target Program, Arkadiy Lalayants, commented:

Implementing the set of measures that will guarantee stable deliveries of petroleum requires that the countries make greater efforts involving large capital investments and other material outlays. This means *a search must be made for those forms of effective cooperation* that would make it possible to satisfy the economically justified needs of the countries for petroleum and petroleum products (motor fuel in particular). [Emphasis added.] [redacted]

In June 1979 a prominent Soviet CEMA spokesman, Yuriy Shiryaev, admitted to a Western economist that the whole system of East European investment in extractive facilities in the USSR in return for the promise of long-term deliveries of raw material produced at these facilities had fallen into disarray because of disputes over Soviet prices. CEMA was unable to solve this problem, which was so acute that the system would have to be abandoned. Soviet policy in the future would be to encourage East European countries to invest domestically in facilities for production of goods that could be bartered for Soviet raw materials. That same month, however, a Soviet economist struck a somewhat different note in proposing that East European countries acquire oil as compensation for supplying chemicals for tertiary recovery, that East European countries form joint enterprises with the USSR for tertiary recovery from depleted Soviet fields, and that the USSR continue to make use of East European labor along the lines pioneered by the Orenburg gas pipeline project. [redacted]

[redacted]



Similarly, Bulgarian officials complained that a long-term agreement signed with the USSR in September 1979, which in their view should have set out in great detail what Soviet deliveries would be through the year 1990, was reduced by the Soviets to being nothing more than a "political declaration." The Soviets had categorically refused to agree to supply oil in any particular volumes or at preagreed prices. [redacted]

The change in the Soviet attitude toward cooperation that provides guaranteed fuel deliveries probably has a number of causes:

- The price issue—as noted above.
- A Soviet desire to exercise tighter control over the disposition of its own energy resources, perhaps combined with doubts about their future availability.
- The fact that the energy policy priorities set in the Target Program require the East Europeans to contribute more in the area of specialized machine-building.
- Possibly the calculation that further demands for greater investment in Soviet energy development would defeat the broader aim of "socialist integration" by increasing the already intense pressures upon the East European states to develop export trade with the West to pay for the investment.



East European Energy Self-Help

In order to evaluate the Soviet strategy for helping Eastern Europe to help itself, we need to look at how this strategy will affect the East Europeans. [redacted]

Conservation. Since the early 1970s the Soviets have constantly pressured the East Europeans to conserve energy. In response, the East Europeans have always

attempted, when dealing with the Soviets, to rebut the argument that they are not doing everything possible to conserve. At each annual CEMA session the East European representatives detail all their conservation measures, in order to make the point: "We can't do any more!" [redacted]

Soviet action and East European reaction had not produced any real coordination of policy among the CEMA member countries on how to conserve energy even by 1979. Nevertheless, individual East European countries have introduced many energy conservation measures, some of them quite Draconian.⁵ [redacted]

Notably, however, these measures so far have focused mainly on administrative attempts to restrict such energy use as lighting, vehicle use, and room temperatures, that is, to regulate *private consumption*, which constitutes no more than 20 percent of energy use in Eastern Europe. This emphasis does not mean that public sector opportunities to conserve energy are lacking: energy *is* wastefully used in East European industry, agriculture, and transportation compared with West European levels; the existing machinery *is* energy-wasteful; and structural changes in the economy could produce energy savings. [redacted]

The difficulty is that there are big costs and obstacles associated with conservation in the *production* sphere, and the prospects for major gains here even in the medium term are limited. Measures here are very likely to reduce output, at least in the short run. Attempts to raise energy efficiency in existing technology depend upon improving general microefficiency, which in turn raises the delicate issues of producer price changes and economic reform. Doing something about upgrading the energy efficiency of the machinery implies accelerated machinery imports from the West, paid for in scarce hard currency—which means more debt and more exports to the West rather than to CEMA. And implementation of changes in the structure of East European economies raises a host of sensitive policy issues. [redacted]

⁵ In Romania, for example, private automobile use is limited to alternate weekends; maximum winter temperatures is 65 degrees Fahrenheit for homes and 61 degrees for factories; and home electric lighting after 10 p.m. is supposed to be restricted to a single 45 watt bulb. [redacted]

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Economic Structure. From the Soviet standpoint, and perhaps from a cost/benefit point of view, it would make sense to shift energy-intensive industry near to the sources of relatively less expensive power (that is, Siberia), and in Eastern Europe to emphasize development of those industries that consume less power. Soviet spokesmen have consistently recommended this course of action to their East European clients. In 1976, for example, Kosygin laid out the Soviet position on the chemical industry—one of the key areas of controversy:

Big reserves for raising the effectiveness of social production also lie in expanding cooperation in the area of chemicals, in joint creation of energy-intensive and material-intensive chemical production near the basic sources of mineral raw materials and fuel.

We regard it as expedient to review within the framework of the long-term target program for power the proposal for joint construction on the territory of the USSR of big enterprises with large capacity units for the production of synthetic rubber, ammonia, methanol, polyethelene, polyvinylchloride, ash, and nitric acid. A considerable part of this output would be supplied to other member countries of CEMA. Construction of such enterprises would permit the European CEMA countries to achieve a greater economy of liquid and gas fuel. The interested countries could participate either in the construction of enterprises, or concentrate their efforts on the production of less energy-intensive and material-intensive chemical products . . . and supply this output to the Soviet Union as compensation for supply of energy-intensive output. Such a solution of this problem would assist in perfecting the structure of the chemical industry of the CEMA countries and would serve as a firm basis for expanding specialization and cooperation.

The Soviet position has found some supporters in Eastern Europe. The Hungarian economist Istvan Dobozi, for instance, has argued that the entire Stalinist pattern of autarkic development of individual East-European economic systems led to the unproductive concentration of resources in primary and heavy industries for which there was no adequate raw

material base, and that the time has come to abandon this burden by pursuing the sort of division of labor talked about by the Soviets. This is, however, almost certainly a minority point of view in Eastern Europe.

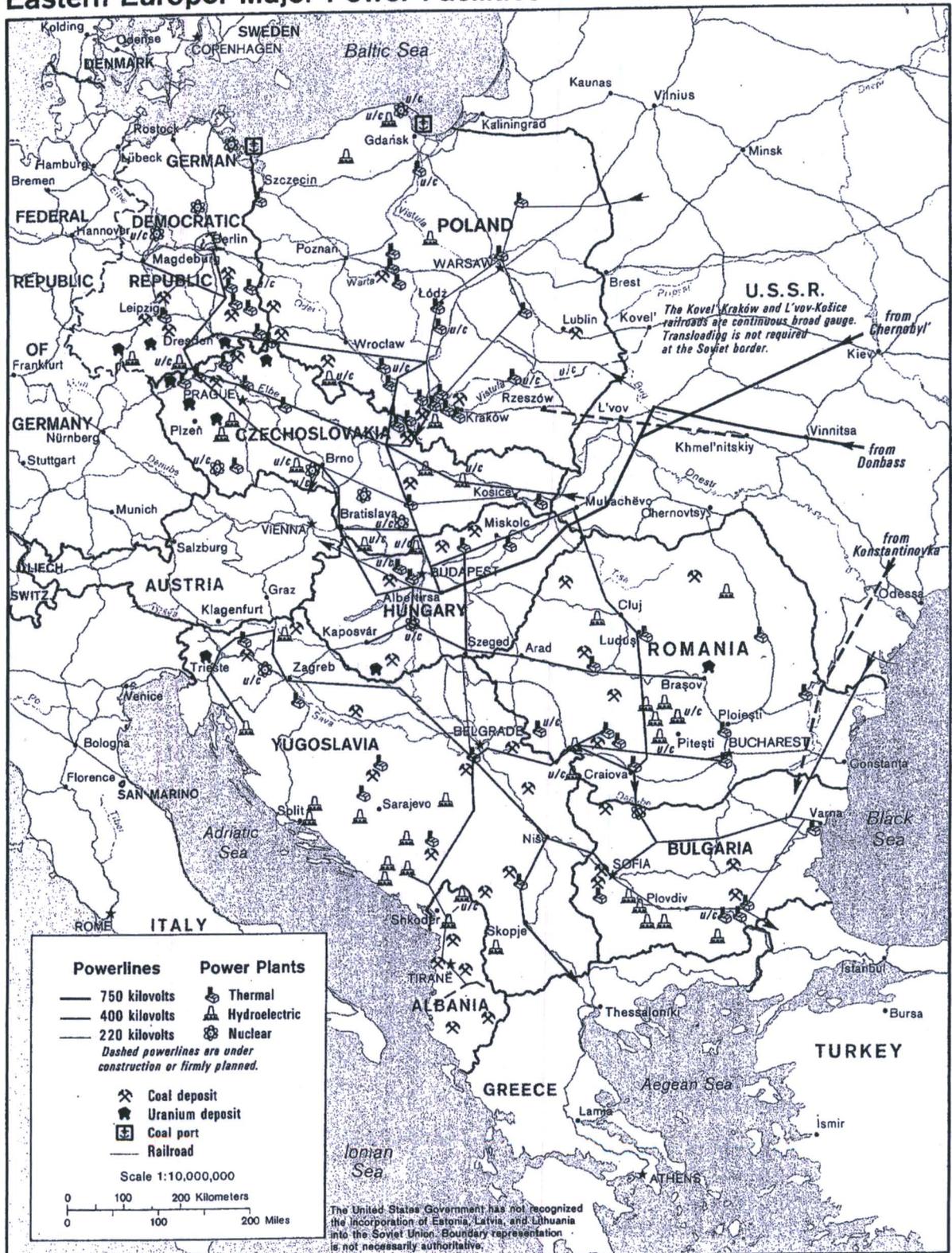
What the Soviets are asking the East European states to do first is to scale down their plans for development of the petrochemical industry. This industry is viewed by a majority of East European states—especially East Germany and Poland—as a strategic key to economic growth, production of agricultural and consumer goods, and production of hard currency export earnings.

Secondly, the Soviet demand requires that the less developed CEMA states more gradually pursue their goal of "equalization" of development levels among the CEMA members (which they interpret in conventional Communist terms as development of heavy industry). The best example here is the Bulgarian plan of building a third metallurgical complex near Burgas, which the Soviets have repeatedly refused to support on the grounds that Bulgaria neither needs the project nor has the iron ore and coking coal with which to supply it. From the Bulgarian standpoint the Soviet position is tantamount to consigning Bulgaria to remain basically a supplier of agricultural products to the more developed "fraternal countries."

Thirdly, there is the problem of possible social dislocation caused by shifts in industrial structure. East European political and economic leaders are extremely wary of disequilibrium arising from attempts to close down plants or eliminate labor redundancy. When it was suggested to a Czech economic official recently that the overstaffing of plants that had built up "since 1968" should be reversed and that the inefficient plants should be closed down he reportedly replied that he wanted "not only frank, but realistic views."

Finally, there is the broader issue of economic dependency implied by the Soviet-proposed division of labor. The Romanians have been the most outspoken in their rejection of this concept, but they appear to express views which enjoy a much wider—if unarticulated—popularity among other East Europeans.

Eastern Europe: Major Power Facilities



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Coal. The assumption that Eastern Europe can do more in the near term to meet its own energy needs rests heavily on the calculation that all the East European states can accelerate coal production, and—to a lesser degree—that Poland can export increasing amounts of coal to other CEMA member countries. At the 31st CEMA session in June 1977, Kosygin told the assembled East European premiers:

It is necessary to make wider use of solid fuel (including low caloric fuel) for the production of electrical energy and power-technological utilization. In the European CEMA countries there are considerable natural reserves of hard and brown coals, lignites, reaching approximately 105 billion tons, apart from expected reserves of about 80 billion tons. . . .

According to the evaluation of specialists, the available reserves of coal for the CEMA member countries permit a considerable increase in the extraction of solid fuels. In this way it is possible—more broadly than is supposed—to construct thermal electric power stations.

Moreover, the USSR's top planning official who deals with CEMA energy affairs, Arkadiy Lalayants, recently publicly linked rising world fuel prices, the use of coal, and the possible Polish contribution to East European energy supply:

The new situation in world energy and the raising of prices on hydrocarbon raw materials has made it necessary to return to the question of processing coal shale and bituminous coal dust. . . . What merits great attention, for example, is the development of cooperation in the utilization of the large deposits of steam coal in the territory of the Polish Peoples' Republic, which are located in direct proximity to other European CEMA member countries. [redacted]

The East European states have attempted to increase coal production, but they are much less optimistic than the Soviets are that they can raise output significantly. Reserves are depleted, investment costs are sharply rising, attracting labor is difficult, and environmental problems are serious. The East Germans and Czechoslovaks, who besides the Poles are the largest coal

producers, have repeatedly raised these issues. East Germany has pointed out at CEMA sessions that the share of coal in the country's fuel balance is already extremely high. At the 1979 CEMA session, the Czechoslovak Premier Lubomir Strougal pointedly complained:

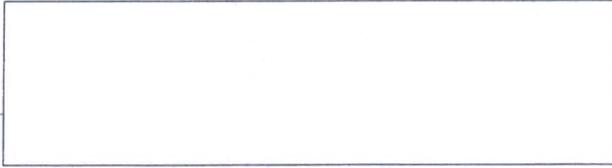
We are devoting extraordinary attention to the long-term problems of our fuel and power balance. Along with extensive participation in international cooperation, such as the construction of electric power stations, transit gas pipelines, and transmission lines, we are establishing the prerequisites for the further development of our own resources and for achieving maximum savings in all kinds of fuel and power. At the same time, in coal extraction, we must cope with constantly deteriorating natural conditions. On top of that, in brown coal extraction (strip mining), we must cope with the considerable growth of investments required as a result of moving railroad tracks and waterways and the relocation of towns and villages. Despite our enormous efforts and considerable investments, the lack of minimum increments of fuel and energy will continue to be one of the severest limiting factors in our national economic development in the years 1981-85, even though we envisage a lower rate of development compared with the present five-year plan.

Strougal did not mention, although he could have, that the tremendous pressure to increase coal output has meant heavy demands on coal miners in Czechoslovakia and elsewhere in Eastern Europe for overtime work—a potentially serious source of unrest. [redacted]

In the 1971 Complex Program contained a reference to Polish coal as an element in the CEMA-wide energy base, and the Soviets (as well as other CEMA members) have never concealed their interest in this source of fuel. [redacted]

[redacted] the then Polish Premier Piotr Jaroszewicz is [redacted] received Soviet agreement to supply new mining equipment only on condition that Poland would increase its deliveries of top-quality coal to the USSR. Acceleration of construction of the broad-gauge Katowice-USSR railway line in 1979 has been viewed by Poles and others as a reflection of a Soviet desire to step up imports of Polish coal. [redacted]

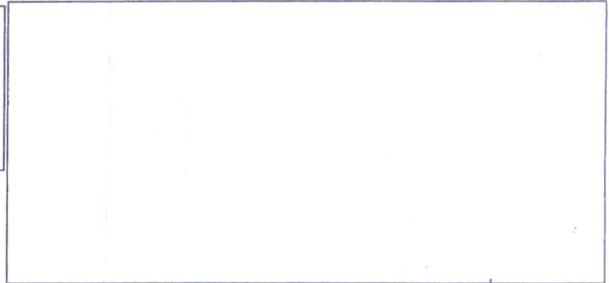
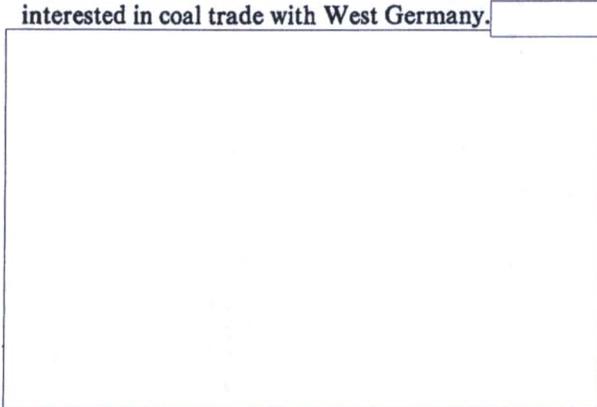
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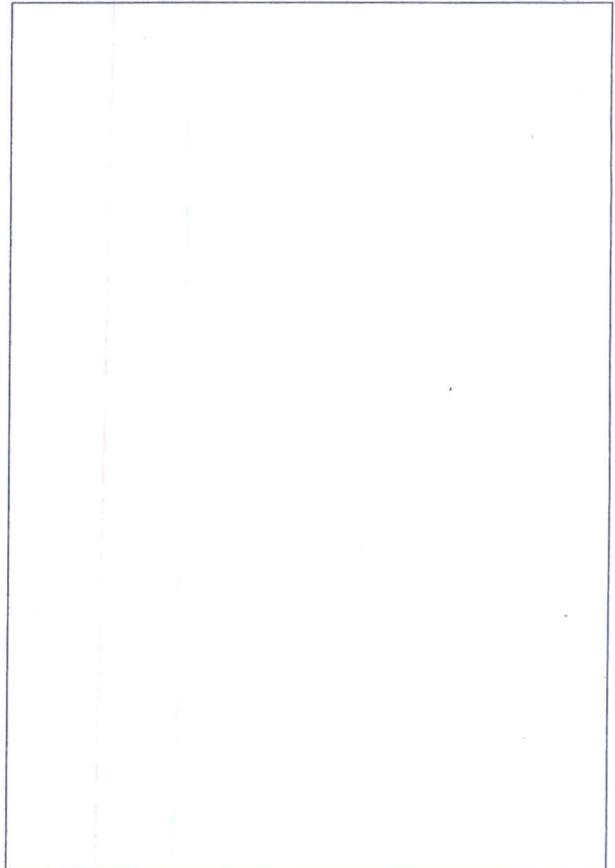
Dealing with their CEMA allies, the Poles have taken the public position that "Poland, to the extent possible, is ready on mutually acceptable terms to participate with its fuel resources in satisfying the needs of its partners"—as Jaroszewicz pledged to the 1978 CEMA session. Privately, the Poles are much less helpful. At a high-level energy conference held in February 1978, Polish specialists made clear to the leadership that raising coal output would be extremely expensive, and some senior officials in the Ministry of Power Industry and Atomic Energy considered future targets to be highly unrealistic. Yet at the conference Deputy Premier Jan Szydlak asserted that Polish hard currency oil imports in the 1980s would have to be paid for with income derived from coal exports to the West. Comments by a senior Polish official in May 1978 also indicated doubt that long-term coal plans were attainable; he said reserves were overestimated, and that despite widespread mechanization, miners were already working Saturdays and sometime Sundays.



From the Polish standpoint, as already indicated, it is critical to maintain hard currency exports of coal. As one Polish journalist observed in September 1979, "The export of our hard coal gives us annually one billion dollars in revenue. In the present situation we cannot forgo such incomes, all the more so since it is increasingly difficult to place large quantities of industrial goods on the markets of the highly developed capitalist countries." Poland has been especially interested in coal trade with West Germany.



Polish Foreign Minister Wojtaszek expressed Poland's interest in US investment in the Polish coal industry,



Nuclear Power. The East European CEMA states expect to have an installed nuclear power capacity of approximately 5000 megawatts by the end of 1980, producing about 4 percent of the region's electricity (see table 1). This capacity is distributed unevenly among East European countries, and constitutes a varying percentage of electrical generating capacity. Current projections of installed capacity in 1985 and 1990 reflect the same differentiated pattern. Thus, for

Table 1

East European CEMA Nuclear Power Programs

	Status of Power Reactors as of 1979 ¹	Installed Capacity in 1980 ²		Installed Capacity in 1985 ²		Installed Capacity in 1990 ²	
		Total MW	% of Electrical Generating Capacity	Total MW	% of Electrical Generating Capacity	Total MW	% of Electrical Generating Capacity
Bulgaria	4 OP, 1 UC	1,760	20	1,760		2,760	50
Czechoslovakia	2 OP, 6 UC, 10 P	880		5,000-7,500		12,000	
East Germany	5 OP, 8 UC	1,830	8	4,470		5,350	
Hungary	4 UC, 2 P	440		1,760		3,760	25-30
Poland	2 UC, 1 P	0	0	880		1,880	13
Romania	5 P	0	0	0	0	660	

Source: *Nuclear Programs of Eastern Europe*, SI 79-10050, July 1979

¹ OP-Operational; UC-Underconstruction; P-Planned

² Projected

This table is ~~Secret~~ ~~Noncontract~~.

example, Czechoslovakia expects to have almost 12 times the nuclear generating capacity of Romania in 1990, while Bulgaria anticipates meeting 50 percent of its electricity needs in 1990 through nuclear power, as opposed to Poland's 13 percent.

With the exception of Romania, which appears to have opted for the Canadian Candu reactor, all the other East European CEMA states are basing their nuclear programs on Soviet fuel supply and technology—the current VVER-440 pressurized water reactor (PWR), and the VVER-1000 PWR scheduled to be introduced as the standard reactor in Eastern Europe in the mid-1980s. How these individual national programs are to be implemented—that is, what the respective contributions of the USSR and the East European states should be, and how committed the East European leaders really are to the programs—are controversial issues.

Increasingly in the 1970s, the Soviets have urged the East Europeans to turn toward nuclear power as the foundation for solving their energy problem. At the 30th CEMA session in July 1976 Kosygin set forth

what have continued to be Soviet arguments in the nuclear field:

- Nuclear power in the long run must make a substantial contribution to the energy balance of the other CEMA countries.
- The USSR was prepared to render "technical assistance" to other CEMA countries in the construction of atomic power stations.
- The USSR was prepared to "participate with interested countries in building atomic electric stations on their territory."
- There should be "broader specialization and cooperation in the production of equipment for atomic electric stations." Involvement of the CEMA countries in the nuclear industry would have as one of its major side benefits the upgrading of those countries' entire machinebuilding sector. Kosygin also made a pitch for investment by other CEMA countries in construction of the huge Soviet "Atomash" nuclear power equipment plant—a demand that may later have been dropped.

In the Soviet view, attaining major advances in machinebuilding has always been the key to success of a CEMA nuclear program. Not surprisingly, once they decided to invite the East Europeans into the nuclear equipment manufacturing club, the Soviets have harped on the need for the East Europeans to move faster in the machinebuilding sector. Thus, at the 32nd CEMA session in July 1978 that approved the energy Target Program, Kosygin declared:

The Soviet Union is ready to render assistance in realizing the program of construction of AESs [atomic electric stations] projected within the CEMA framework. Fulfillment of this program will demand *from all of us* the accelerated creation of large production capacities for the manufacture of equipment for AESs, the careful organization of multilateral cooperation in the corresponding branches of industry, the unification of efforts of the scientific and design collectives of our countries. The Soviet Union is speeding the development of the production of equipment for AES, is building for this purpose a large specialized factory, "Atom mash," and is expanding the capacities of other machinebuilding enterprises. *Evidently, other countries too are interested in preparing themselves to participate in cooperation in such an important branch of machinebuilding.* The agreement on cooperation in the production of equipment for AESs will demand *from our countries* great work in the reequipping of machinebuilding, and in the training of yet more qualified cadres of machinebuilders. All this will promote the technical progress of our machinebuilding as a whole. (Emphasis added.)

This pressure, which continues, has generated controversy within CEMA over investment, production specialization, nuclear safety, hard currency trade, and—for some countries—nuclear dependency.

Soviet interest in promoting nuclear power within CEMA was reflected in the energy Target Program approved at the 32nd session in July 1978. The Target Program stressed the principle of "accelerated development of the nuclear energy industry on the basis of coproduction and specialization in production of equipment for nuclear power plants." This general principle

was embodied in directions to the CEMA Planning Commission and the CEMA nuclear power agency, Interatomenergo, to prepare draft agreements on multilateral specialization and coproduction in the manufacture of nuclear power equipment during 1980-90, and on construction of nuclear power plants with a total capacity of 29,000 Megawatts on the territory of other CEMA countries, with technical assistance from the USSR.

The Planning Commission and the CEMA Standing Commission for Electrical Energy were also instructed to prepare draft agreements on cooperation (among Hungary, Poland, Czechoslovakia, and the USSR) in the construction of the Khmel'nitskiy nuclear power station in the Ukraine, with a transmission line to Poland, and on cooperation (among Bulgaria, Romania, and the USSR) in the construction of the Konstantinovka nuclear plant in the Ukraine, with a transmission line to Romania and Bulgaria. The provisions for specialization and coproduction of nuclear equipment (in which all the East European states plus Cuba declared an interest) were repeated in the machinebuilding target program, which also noted the interest of all the East European states in joining with the Soviets to begin production of a 1000-megawatt PWR (the VVER-1000 reactor).

What the energy Target Program confirmed, however, was really only an agreement in principle by the interested CEMA members to reach a subsequent detailed multilateral agreement which would become effective only after details were spelled out in binding bilateral agreements. After intense negotiations (especially between the Czechoslovaks and the Soviets) the multilateral agreement on cooperation in the production of nuclear power equipment was signed a year later at the 33rd CEMA session. This agreement, in Kosygin's words, called for "the creation in our countries of a new important branch of the machinebuilding industry."

A few months earlier, at the March 1979 meeting of the CEMA Executive Committee, a general multilateral agreement on construction of the Khmel'nitskiy nuclear power station and the Khmel'nitskiy-Rzeszow (Poland) 750 Kv. power line was signed, but no

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agreement was reached by Bulgaria, Romania, and the USSR on the Konstantinovka nuclear plant. As USSR Gosplan Chairman Baybakov had pointed out in September 1978, the terms of the two power plant deals, based on the "values of the goods factually supplied by [each] country," were to be settled "in a bilateral manner during coordination of economic plans and formulated as supplementary protocols to the agreements." [redacted] there were no firm contractual East European commitments as of July 1979 even on the Khmel'nitskiy project, beyond the Czechoslovak role in construction of the reactor. [redacted]

Today, all the East European states accept the need for some allocation of resources to nuclear power, although Czechoslovakia, East Germany, and Bulgaria are more deeply committed to large nuclear investment than some of the other CEMA members. In essence, the East Europeans see nuclear power—ultimately—as the only means of relieving the energy squeeze, given the skyrocketing price of oil and extremely limited capacity for expanding coal production (with the exception, to some extent, of Poland). At the same time, however, they have reservations about the package prepared by the Soviets. [redacted]

The nuclear program pushed by the Soviets on CEMA is probably a good deal for the East Europeans, judged by what they would have to pay in the short term for alternative Western nuclear technology, by the relative security of nuclear fuel supply, and by the avoidance of problems associated with the disposal of nuclear waste (since all spent fuel is returned to the USSR). Yet, the East Europeans have not rushed to shoulder the cost burden of nuclear power. [redacted]

First, questions have been raised by the East Europeans, about the advisability of investment in the two nuclear power plants scheduled for construction on Soviet soil. Bulgarian, Czechoslovak, and Polish reservations on this score have been especially strong, probably reinforced by reluctance to invest in an energy facility not under their own control. Equally important, the East Europeans have been concerned with the trade-off between investment in nuclear power, with its inherently longer payoff time, and urgently-needed investment in coal production. [redacted]

In addition, public statements notwithstanding, the East Europeans have also been worried about the safety of Soviet-designed nuclear equipment. Of the three countries with installed Soviet equipment, East Germany has already had serious problems, including radioactive contamination of discharged cooling water, the jamming of fuel elements, poor quality welding, turbine vibration, and inoperative valves, leading to plant shutdowns. The Bulgarians have been concerned with the resistance of their equipment to seismic disturbances. And the Czechoslovaks, chastened by a series of serious nuclear accidents in their own A-1 reactor resulting in two known deaths and radioactive venting, which have evoked considerable concern on the part of neighboring Austria, have also been concerned with the safety features of Soviet equipment. All of the East European states have been unhappy with the lack of a containment vessel for the Soviet VVER-440 reactor and the absence of an emergency core cooling system. They have also been sensitive to public anxiety over nuclear security, at least to the extent of having to cope with this as a propaganda problem—especially in view of the Three Mile Island incident in Pennsylvania. [redacted]

East European officials probably have been considerably more concerned with issues raised in the implementation of the CEMA nuclear program. First, there has been the question of arranging a satisfactory division of labor among the CEMA members in the production of nuclear equipment. Apart from the cost factor, this has probably been the most contentious element in CEMA nuclear cooperation. Associated with this issue has been the clearly perceived need to effect radical improvements in the training and motivation of labor in order to carry out the complex and demanding tasks posed in the production of nuclear equipment. Finally, there has been evident scepticism over the capacity of an interdependent CEMA manufacturing process to meet quality standards and delivery deadlines. [redacted]

At least some Polish officials reportedly believe that their nuclear program goals cannot be met unless the power plants are purchased from the West. Recent public statements by top East German officials and [redacted] complaints by them to Soviet authorities probably reflect serious doubts in East Germany that

schedules and quality control will be maintained.

Because of its highly developed machinebuilding industry and limited indigenous fuel resources (apart from uranium, which is Soviet-controlled), Czechoslovakia has been the strategic base upon which the Soviets have hoped to build East European participation in CEMA nuclear machinebuilding. Up to a point, the Czechoslovaks have reciprocated this interest, because of their appreciation of the severe limits on their own coal production. Yet, the Czechoslovaks have long complained about the implementation of the CEMA nuclear program in Czechoslovakia. The key issues have involved costs, domestic resource allocation, reciprocal Soviet fuel deliveries, the composition of Czechoslovak output, and hard currency trade.

As early as 1976, the Czechoslovaks clearly and publicly demanded that their commitment of capital and hard currency to nuclear power machinebuilding should be valued "equivalently" to Soviet fuel deliveries in USSR/Czechoslovak economic relations, and thus should make unnecessary Czechoslovak credit and material participation in Soviet energy development as the quid pro quo for fuel deliveries.⁶ At the 1977 CEMA session the draft program on nuclear machinebuilding, apparently prepared in this instance under Czechoslovak guidance, drew criticism from Kosygin. One of the issues here was almost certainly a Czechoslovak attempt to assert a claim to production of turbogenerating sets for the VVER-1000 reactors;

⁶In Premier Lubomir Strougal's words at the 30th CEMA session in June 1976: "We suppose that the contribution of interested countries to individual integration measures does not always have to take the form of direct credit and integral participation. The benefits flowing from integration measures, in our opinion, can be compensated for also in another form, for example, through the construction and development of facilities which, from the point of view of expenditure of capital and hard currency funds, purchases of production machinery and licenses, and expenditures on the development of the corresponding material base are analogous. We have in view the construction and development of capacities, for example, for the production of equipment for atomic electric stations, for the production of special pipes, compressor stations, metallurgical and chemical equipment, and a number of other types of technological equipment. This kind of output should be evaluated as equivalent to the supply of fuel, power, raw materials, and materials. We recommend, therefore, that the principle of economic equivalence (*narodnokhozyaistvennaya ekvivalentnost'*) in the indicated sense receive appropriate attention first of all in the elaboration of the long-term target programs of cooperation." (ESS 1976, No. 4, p. 36)

without this Czechoslovakia would be totally dependent on Soviet supply for this key component, would have to restructure its existing nuclear production profile, and would be deprived of an important nuclear export item. In addition, at the 1978 CEMA session that approved the energy Target Program, Czechoslovak Premier Strougal appeared to condition his approval of the nuclear program by dwelling on the need for Soviet oil and gas deliveries.

The long-simmering controversy between the Soviets and the Czechoslovaks over Czechoslovakia's role in the CEMA nuclear program seems to have come to a head during Kosygin's visit to Prague in May 1979. According to US Embassy reports, one of Kosygin's reasons for coming to Prague was to pressure the Czechoslovaks to speed up production of VVER-400 reactors—for which Czechoslovakia is to be largely responsible by 1985. Kosygin is said to have proposed that the Czechoslovaks cut back on other kinds of industrial output in order to accelerate reactor production. At the same time, he reportedly proposed stepped up deliveries of equipment for the Soviet petrochemical, metallurgical, transportation, and other sectors.

The Czechoslovaks are reported to have countered with complaints about the burden on the engineering sector of nuclear equipment production, about the related negative effect on Czechoslovak hard currency earnings, about the share and price of electricity to be delivered to Czechoslovakia from the Khmel'nitskiy nuclear power station, about the negative trade balance with the USSR, and about the price and volume of future Soviet oil deliveries. In the end, the Soviets may have made some concession on oil prices, but even if they did, this did not put an end to Czechoslovak concerns.

In his speech at the 33rd CEMA session in Moscow in June 1979, Premier Strougal presented an astonishingly frank analysis of tensions in Czechoslovak economic development that highlighted the impact of the energy problem and suggested some of the constraints imposed by the nuclear machinebuilding program. Czechoslovakia, he observed, was not fulfilling its economic plans and was not coping with its own

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fuel and power needs, capital construction problems, technological obsolescence, or balance of payments difficulties—even though it was fulfilling all its CEMA integration commitments and rendering foreign aid (“within the limits of our possibilities”). Although work was progressing on the target programs, it was “nevertheless becoming apparent that in most instances the contribution made by the proposed cooperation will be apparent only after 1985.” If a “mutually acceptable agreement” on the “complicated and demanding problems” posed by the cooperation program in the fuel, power, and raw materials sectors were to be reached, this depended upon “achieving a speedy solution of the still open questions” in the coordination of the national five-year plans for 1981-85—that is, the level and price of Soviet fuel deliveries.

In this context, Strougal emphasized the “enormous efforts and considerable investment resources” that had to be put into coal production, which would still fail to provide minimum increments of energy and thus depress the rate of economic growth in 1981-85. This situation was why Czechoslovakia attributed “extraordinary importance” to its central role in CEMA nuclear equipment production; but this role was “so demanding that it substantially limits our possibilities for developing other engineering branches.” The implications of Strougal’s remarks were clear: Czechoslovakia was being subjected to extraordinary economic pressures, which cried out for Soviet relief.

Soviet Energy Deliveries to Eastern Europe
Quantities. There was a steady rise through the 1970s in the ratio of energy imports to total energy consumption in Eastern Europe (see table 2). The share of imports in total energy consumption rose from about one-fifth to about one quarter between 1970 and 1977. Imports from the USSR rose at about the same pace as total energy imports, and accounted for three quarters of the total. During the 1970-77 period covered in the table, the Soviet share of energy imports peaked in 1975 and then began to decline slightly. In the gas, coal, and electricity sectors taken individually, the highest ratio of imports to total energy consumption was only 5.9 percent (coal, in 1970-71). Taken together, the highest joint contribution of imports in these three sectors to total energy consumption was only 8.8 percent (in 1977). The key sector was clearly

oil imports, in which the Soviet role was paramount. Soviet oil imports as a proportion of total energy consumption rose to 15 percent in 1977, and these imports accounted for over half of all energy imports throughout the 1970-77 period—although the share began to drop slightly after 1975.

Soviet oil production rose from 7 million barrels per day in 1970 to 11.4 million in 1978, while exports rose from 1.9 million to 3.2 million b/d over the same period (see table 3). Table 4 shows the allocation of this production in percentages. Throughout the 1970s, the Soviets exported slightly over one quarter of their oil output. Apart from a dip in 1974-75, the level of exports remained stable at 27-28 percent. Except for the deviant years 1977-78, there is a gradually rising trend line of exports to Communist countries between 1970 and 1978 (see table 4). This pattern essentially reflects a rising share of exports to Eastern Europe (42 percent in 1970, 47 percent in 1978).

Significantly, hard currency exports also rose since 1974, after declining steadily between 1970 and 1974. The ability of the Soviets to increase exports simultaneously to Eastern Europe *and* to the hard currency market was based on cutting back exports to “other” markets—namely LDCs. The share of oil exports allocated to these claimants dropped from 15 percent in 1970 to 7 percent in 1978.

Since 1973 the annual rate of increase in Soviet oil production has progressively declined (see table 5). The movement of exports during this period fluctuated greatly, without any apparent relationship to changes in rates of increase in oil production. Exports in 1977-78 were down sharply, however, from the 1970-76 average annual increase of 7.6 percent—in line with the declining rate of increase in oil production.

In most years, exports to Communist countries increased more rapidly than total exports. This pattern did not hold in 1975 and 1976, however, when the Soviets steeply raised exports to the hard currency market in order to attempt to cover their huge hard currency trade deficit by capitalizing on sharply rising world oil prices.

Table 2

East European Energy Imports and Consumption

	1970	1971	1972	1973	1974	1975	1976	1977
Oil								
All imports as percent of total energy consumption	13.2	12.3	14.2	15.5	15.6	16.4	17.4	17.6
Soviet imports as percent of total energy consumption	11.3	12.0	12.8	13.9	14.3	14.6	15.1	15.0
Soviet imports as percent of total energy imports	55.2	55.4	54.9	54.8	55.3	55.4	55.0	53.1
Gas								
All imports as percent of total energy consumption	1.0	1.0	1.0	1.0	1.7	2.2	2.6	3.1
Soviet imports as percent of total energy consumption	1.0	1.0	1.0	1.0	1.7	2.2	2.6	3.1
Soviet imports as percent of total energy imports	2.7	3.3	3.2	4.0	6.7	8.3	9.2	10.8
Coal								
All imports as percent of total energy consumption	5.9	5.9	5.5	5.6	5.3	5.0	4.7	4.7
Soviet imports as percent of total energy consumption	3.0	3.3	3.2	3.2	2.9	2.9	2.8	2.6
Soviet imports as percent of total energy imports	14.6	15.2	13.6	12.6	11.3	11.0	10.3	9.2
Electricity								
All imports as percent of total energy consumption	1.0	1.0	1.0	1.2	1.2	1.0	1.0	1.0
Soviet imports as percent of total energy consumption	0.5	0.5	0.6	0.7	0.7	0.7	0.7	0.7
Soviet imports as percent of total energy imports	2.3	2.4	2.6	2.7	2.7	2.8	2.7	2.6
All imports as percent of total energy consumption	21.1	20.2	21.7	23.3	23.8	24.6	25.7	26.4
Soviet imports as percent of total energy consumption	15.8	16.8	17.6	18.8	19.6	20.4	21.2	21.4
Soviet imports as percent of total energy imports	74.8	76.3	74.3	74.1	76.0	77.5	77.2	75.7

Sources: *Vneshnaya trgovlya SSSR* and East European trade books.

Total energy is defined as oil, gas, coal, and electricity and is calculated in standard fuel units.

The most important comparison is between annual rates of increase of exports to Eastern Europe and to the hard currency market. In 1972-74 the Soviets chose to assign priority to increases in deliveries to Eastern Europe, but they gave a dramatically higher priority to increases in sales for hard currency in 1975, 1976, and 1977 (see table 5). In 1978 the Soviets accelerated increases in deliveries to Eastern Europe and cut back increases for hard currency sales, bringing the two into virtual balance.

Within the East European market, the shares of individual countries in the total Soviet delivery to the region remained extraordinarily constant over the

1970-77 period. Comparing 1970 and 1977, or the first year of the 1971-75 five-year plan period with the first year of the 1976-80 plan period, we see that no East European state gained or lost over 2 percent of total Soviet imports. By the same token, there was great stability of shares from one year to the next. At the same time, there *are* differentials among the East European states each year in the percentage increases of Soviet oil deliveries, although the differentials seem to vary randomly from year to year (see table 6). Thus, for example, deliveries in 1972 to Poland increased 19.4 percent but decreased 0.2 percent to Bulgaria, yet increased 17.3 percent to Bulgaria in 1973 while

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Table 3

Thousand Barrels Per Day

Soviet Oil Production and Exports

	1970	1971	1972	1973	1974	1975	1976	1977	1978
Production	7,060	7,540	8,010	8,580	9,180	9,820	10,390	10,920	11,430
Total exports	1,920	2,110	2,140	2,380	2,340	2,600	2,970	3,065	3,160
Communist Countries	1,010	1,110	1,200	1,350	1,440	1,550	1,680	1,740	1,835
Eastern Europe	805	895	975	1,100	1,180	1,260	1,370	1,420	1,490
Asia	30	25	20	20	30	40	40	40	50
Cuba	120	130	140	150	155	160	175	180	190
Yugoslavia	55	60	65	80	75	90	95	100	105
Hard currency market	620	706	653	702	601	764	944	1,050	1,100
Other	290	294	287	328	299	286	346	275	225

Sources: *International Energy Statistical Review*, ER IESR 79-019, 12 December 1979 [] and Paul G. Ericson and Ronald S. Miller, "Soviet Foreign Economic Behavior: A Balance of Payments Perspective," in JEC, *Soviet Economy in a Time of Change* (Washington: GPO, 1979), Vol. 2, p.230.



Table 4

Soviet Oil Exports

	1970	1971	1972	1973	1974	1975	1976	1977	1978
Total exports as percent of production	27	28	27	28	25	26	29	28	28
Communist countries as percent of total exports	53	53	56	57	62	60	57	56	58
Eastern Europe	42	42	46	46	50	48	46	46	47
Asia	2	1	1	1	1	2	1	1	2
Cuba	6	6	7	6	7	6	6	6	6
Yugoslavia	3	3	3	3	3	3	3	3	3
Hard currency market	32	33	31	29	26	29	32	34	35
Other as percent of total exports	15	14	13	14	13	11	12	9	7

Source: table 3.



Table 5

Percent

Annual Rate of Increase of Soviet Oil Production and Exports

	1971	1972	1973	1974	1975	1976	1977	1978
Production	6.8	6.2	7.1	7.0	7.0	5.8	5.1	4.7
Total exports	9.9	1.4	11.2	- 2.0	11.1	14.2	3.2	3.1
Communist countries	9.9	8.1	12.5	6.7	7.6	8.4	3.6	5.5
Eastern Europe	11.2	8.9	12.8	7.3	6.8	8.7	3.6	4.9
Asia	- 16.7	- 20.0	0.0	50.0	33.3	0.0	0.0	25.0
Cuba	8.3	7.7	7.1	3.3	3.2	9.4	2.9	5.6
Yugoslavia	9.1	8.3	23.1	- 6.2	20.0	5.6	5.3	5.0
Hard currency market	13.9	- 7.5	7.5	- 14.4	27.1	23.6	11.2	4.8
Other	1.4	- 2.4	14.3	- 8.8	- 4.3	21.0	- 20.0	- 19.2

Source: table 3.



increasing only 8.3 percent to Poland. Several important inferences can be drawn from these patterns.

The key political factor evidently is how much oil is to be allocated to Eastern Europe as a bloc; that is, what will be the division among the hard currency, "other," and East European markets. This is a choice that is beyond the influence of any individual East European country, or of all of them collectively. Differentials among the more or less constant shares of Soviet oil allocated to the individual East European countries do embody a political-economic "choice," but not one that appears to be often considered in any fundamental fashion. Instead, the share pattern suggests that the cumulative allocation over time is substantially the result of adherence to the preplanned differentials.

Although the objective situation of one supplier and multiple claimants would seem to produce competition for Soviet oil among the East European states, the data suggest that if there has been such competition, it has had remarkably little effect. The East Europeans have some scope for exerting political influence, not with respect to the big issues of Eastern Europe's share of total exports or of the breakdown of deliveries among

the East European states, but rather with respect to the smaller and purely bilateral issue of yearly adjustments at the margin in Soviet deliveries to each East European country.

Negotiations Over 1981-85 Oil Deliveries. Since at least 1978, East European party first secretaries, chairmen of councils of ministers, and planning chiefs have been doing their utmost to convince the Soviets to provide more oil in the 1981-85 plan period, and to make a firm decision to do so as quickly as possible in order to allow the East Europeans to draw up plans for their economies in the 1980s.⁴ Their success has been questionable, however, the average annual growth of oil consumption in Eastern Europe was 13.2 percent between 1970 and 1973, and 5.8 percent between 1974 and 1977. The average annual rate of increase of Soviet oil exports to Eastern Europe between 1974 and 1977 was 6.6 percent and declined to 4.3 percent in the 1977-78 period (see table 5).

⁴ This concern reflects an awareness of the close relationship between growth of oil consumption and growth of GNP in Eastern Europe. In the periods 1970-73 and 1974-77 for example, the annual GNP growth rate and the annual growth rate for energy consumption were identical; 4.6 percent for the earlier period and 4.1 percent for the later one.

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Eastern Europe: Major Oil Facilities

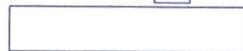


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Table 6

Soviet Oil Exports to Eastern Europe¹

	1970	1971	1972	1973	1974	1975	1976	1977
As percent of Soviet oil deliveries to Eastern Europe								
Eastern Europe								
Eastern Europe	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Bulgaria	18.7	18.0	16.2	17.0	18.7	18.5	17.6	17.9
Czechoslovakia	26.2	26.6	26.2	26.0	25.5	25.5	25.5	24.1
East Germany	23.3	23.3	23.4	23.7	24.8	24.4	24.8	24.2
Hungary	11.3	11.4	11.7	11.7	11.9	12.2	12.5	12.9
Poland	21.5	20.7	22.4	21.6	19.1	19.4	19.6	20.9
Romania	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yearly percentage increase of Soviet deliveries								
Eastern Europe		11.2	8.9	12.8	7.3	6.8	8.7	3.6
Bulgaria		12.8	-0.2	17.3	16.4	6.4	2.7	6.6
Czechoslovakia		12.4	9.0	11.5	3.4	7.6	8.0	
East Germany		11.2	10.6	13.8	10.4	5.7	10.1	1.8
Hungary		11.9	13.3	12.0	7.5	10.1	11.2	7.4
Poland		7.1	19.4	8.3	-7.0	9.7	9.3	11.0
Romania		0.0	0.0	0.0	0.0	0.0	0.0	0.0

¹ Crude and productsSources: *Vneshnaya trgovlya SSSR*, East European trade books; and *International Energy Statistical Review* ER IESR 79-019, 12 December 1979

From the East European standpoint, high rates of increase in energy consumption were viewed in the 1970s as a precondition for maintaining accustomed rates of economic growth. In 1978, the declared energy import requirements through 1990 of CEMA countries, besides the USSR, implied an average annual rate of growth of 5.4 percent, with an 8.5 percent rate for Romania and 8.1 percent for Poland—although the figures for other East European countries were lower (Bulgaria—4.7 percent, Hungary—2.9 percent, East Germany—2.3 percent, Czechoslovakia—3.7 percent). At that time, the CEMA countries collectively were asking for an average annual increase in Soviet oil deliveries of 5.8 percent, although most East European countries were proposing less than this (Bulgaria—3.6 percent, Hungary—3.1 percent, East Germany—2.8 percent, Poland—10.3 percent, Czechoslovakia—1.9 percent).

East European states have employed a number of different bargaining tactics with the Soviets. The Poles, for example, reportedly have argued that political stability depends upon delivery of the oil, that rejection of their demands by the Soviets will compel them to increase their hard currency borrowing and divert exports to the hard currency market, and that Soviet deliveries to individual East European countries *ought* to be more or less equal in per capita terms. The Bulgarians are known to have attempted to pin the Soviets down by forcing them into detailed negotiations. And the Hungarians may have attempted to trade their support of Soviet foreign policy initiatives for more oil in 1981-85. One thing the East European leaders apparently have *not* attempted to do in any serious way is to coordinate their use of CEMA

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institutional mechanisms as a means of pressuring the Soviets. Negotiations with the Soviets have been bilateral, and appear to have been conducted at least to some extent in an atmosphere of competition and jealousy among the East European states themselves.

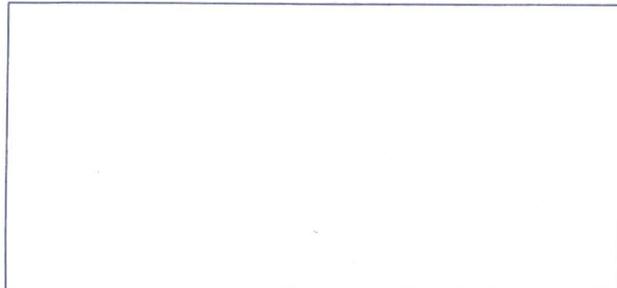
What the East Europeans have actually expected the Soviets to agree to is another matter. Undoubtedly some East Europeans are fatalistic, feeling that the USSR will simply have to provide the oil in 1981-85 because there is no other way out for Eastern Europe. Yet a substantial number of reports indicate that by 1979 East European officials on the whole were not optimistic about the prospects of increased oil deliveries in 1981-85. In the second half of 1979, Soviet failures to meet delivery schedules may have heightened East European doubts that the Soviets would be able to sustain even the 1980 level of deliveries through the next five-year plan period. Protracted negotiations with the Soviets had undoubtedly convinced the East Europeans that difficult times lay ahead.

It is too early to say how the Soviets will allocate their oil production in the 1981-85 period among the four "markets" to which it is supplied: domestic consumption, CEMA, Western hard currency buyers, and LDCs with whom the Soviets have concluded clearing arrangements. There are priorities in each market, and top-priority recipients even in less privileged markets are likely to be given preference over claimants in privileged markets. (For example, the Soviets have already agreed to give the Finns, who pay in soft goods, a solid increase in oil deliveries in 1981-85, while bargaining much harder with their own CEMA clients.) Ad hoc adjustments will be made along the way based on political or commercial calculations. Yet the contours of Soviet intentions are now visible.

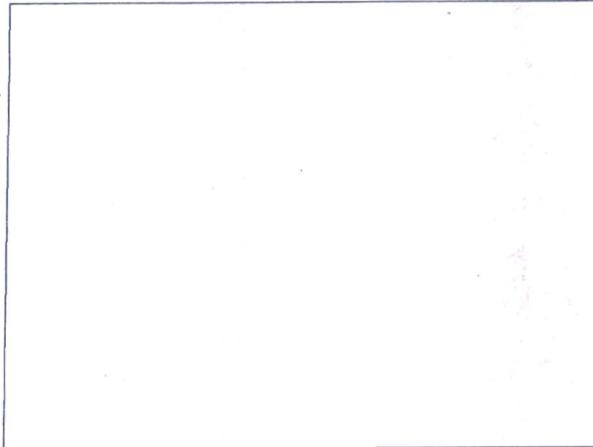


We estimate that exports of crude oil and refined products to all non-Communist countries fell by 16 percent in 1979, and to hard currency trading partners by 23 percent. Nevertheless, rising oil prices pushed up estimated hard currency earnings by about 60 percent. We anticipate that oil exports to hard currency customers in 1980 will drop 50 percent or more below the 1979 level.

Toward the East Europeans, the Soviets have maintained a remarkably consistent position. If we examine what Soviet spokesmen have actually said, rather than view the question through the East European uncertainties and anxieties, we see that the Soviets have firmly asserted that Eastern Europe as a whole cannot expect any significant increase in oil deliveries over the 1980 level between 1981 and 1985. The Soviets have generally also given the impression that deliveries would not fall below this level, although on occasion they have let it be understood that a decline was not inconceivable—especially if East European states were unwilling to accept terms proposed by the Soviets.



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virtually no increase in Soviet oil deliveries after 1980 under the planned trade agreements.

In negotiations with individual East European countries the Soviets have on the whole adhered very closely to the general line sketched above, tempering their position somewhat by a willingness to discuss deliveries slightly above the 1980 level that would be paid for in hard goods or hard currency. It should be noted that the East European leaders appear not to have had an easy time in actually getting the Soviets to translate their general commitment to the region as a whole into firm contractual agreements—a process that is still taking place. There have been conflicting reports about concessions the Soviets may have made in negotiations during 1979—especially with regard to Poland, East Germany, and Hungary. (c)

At the June 1979

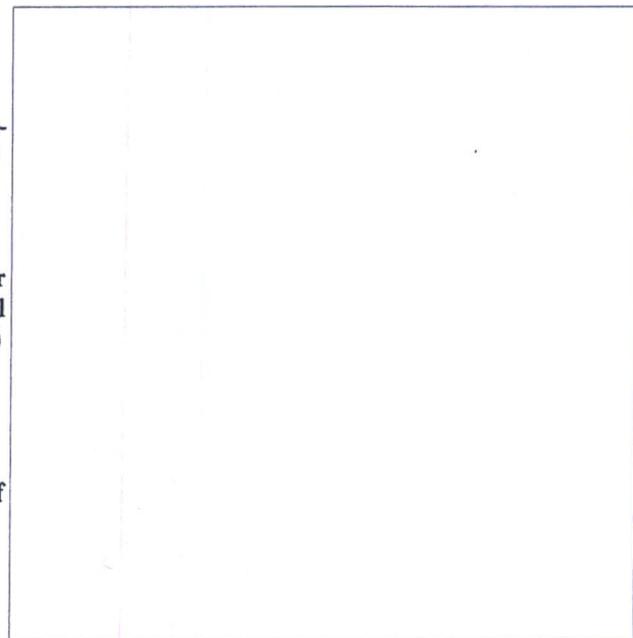
CEMA session Kosygin declared:

In the current five-year plan the Soviet Union is supplying the CEMA countries with almost 370 million tons of oil, 46 million tons of petroleum products, 88 billion cubic meters of gas and 64 billion kilowatt hours of electricity. In the next five-year plan it is planned to increase deliveries of *fuel and energy* resources by a total of 20 percent. But, of course, we must not count on meeting growing demands just on an extensive basis, by increasing production. This no longer meets the interests either of the countries supplying raw materials and fuel oil or the countries receiving them. (Emphasis added.)



When projected increases in Soviet exports of natural gas, electricity, and coal are taken into account, Kosygin's statement implies oil shipments to CEMA of about 1.8 million b/d, which is 8 percent greater than *average* Soviet deliveries planned for 1976-80, but almost the same as 1980 deliveries. When exports to Vietnam, probably not included in the 1976-80 plan, are taken into account, Kosygin's 20 percent figure probably signified almost no increase in oil deliveries to Eastern Europe. This interpretation is strengthened by a Radio Moscow announcement on 17 August 1979 that during Brezhnev's meetings at the Crimea with East European leaders it had been decided to raise Soviet oil deliveries to CEMA to 450 million tons during the five-year plan period—which works out to only a marginal increase over the 1980 level.

East European officials themselves interpreted the 20 percent figure as meaning



The relatively unyielding Soviet position does not mean, of course, that they may not change it in the future; volatile conditions in certain countries (for example, Poland) might induce them to supply more oil, trade factors might lead them to reconsider hard currency sales, or, as is argued below, they may have miscalculated how much oil would be available for export to anyone.

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Soviet Attitude Toward the Price of Oil. The Soviet attitude toward the price it charges for oil is conditioned by the ambivalent general outlook of Soviet officials toward the East European economy. On the one hand, [redacted]

"from top to bottom there is a view among Soviet officials that Eastern Europe is not another country, it's the same as us, it's only a formal creation, this state's independence; they have to give us all their technology, all their machinery, and so on free, not for hard currency, and we have to sell our oil and gas to these countries, because their industrial power is our own, it's not somebody else's." On the other hand, there is a clear awareness and resentment of the hard currency sales forgone and the steeply rising opportunity costs of oil deliveries to Eastern Europe. Within the energy production and planning bureaucracy [redacted] "you can hear this point of view expressed five or six times a day: 'These damned Hungarians and Poles, we have to send them our oil, gas, coal. . .'"

[redacted]

Soviet leaders and officials do not hesitate to tell the East Europeans on every occasion that the USSR has more than performed its fraternal duty over the years in supplying Eastern Europe with energy, above all oil. They believe that equity demands that the East European states shoulder their share of the rising costs of energy development and transportation. Moreover, they resent having to support with oil deliveries a standard of living perceived as higher than that of the USSR. [redacted]

[redacted]

[redacted] Particular ire appears to be felt about the standard of living in East Germany, which is perceived as benefiting unfairly because of its privileged trading relationship with West Germany. [redacted]

[redacted]

[redacted]

[redacted]

The net effect of this type of attitude is probably a strong disposition at all but the very top levels not to give special treatment to East European interest, and a readiness to see East European living standards lowered if need be. On several occasions [redacted] Soviet specialists have been divided over the prices as well as quantities of oil to be delivered to Eastern Europe, and that negative sentiments have been linked to a general unhappiness with the scale of export of nonrenewable resources. One might speculate that it is only because of the actions of a small number of top leaders and officials, who bear direct responsibility for performing the "stateman's" role of weighing the conflicting demands of maintaining political stability in Eastern Europe and promoting Soviet economic self-interest, that oil deliveries have been kept as high as they have since 1973, and at concessionary prices. [redacted]

An Oil Price Squeeze? It is extremely difficult to determine how much the Soviets have actually forced the East Europeans to pay for oil—and this is not only because the Soviets after 1976 ceased to publish data from which one could calculate oil export prices. A number of factors have a bearing on the problem:

- There have been three categories of Soviet oil deliveries to Eastern Europe: deliveries based on five-year trade agreements; deliveries based on compensation agreements—in which East European investment or labor is paid for in oil; and straight hard currency purchases by East European countries. Prices have been calculated differently for each of these classes of deliveries.

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Eastern Europe: Major Gas Facilities



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- The real cost of oil has depended significantly upon CEMA prices for goods exported by East European countries to the USSR, and these prices—which have been subject to arbitrary determination and much manipulation—have by no means necessarily reflected real costs.

- The real cost of oil has depended in part upon the cost to East European countries of their participation in compensation deals, which have involved the transfer of “hard goods,” repayment of hard currency loans, and provision of labor.

- Payment for oil has to some extent involved the redirection of East European trade from the Western hard currency market to the USSR, which entails various opportunity costs as well as direct hard currency losses.

- In CEMA trading practice, transactions in one sector (for example, petroleum) apparently may be balanced by transactions in totally different sectors, making it impossible for outsiders (and perhaps insiders too) to determine what the “deal” actually was.

- The costs to East European countries of Soviet oil have to some extent been offset by balance-of-payments deficits they have been allowed to run in their trade with the USSR—which are in effect Soviet loans to these countries. Thus it is not possible to say precisely what “price” the Soviets have forced the East Europeans to pay for oil, even when the oil price per se is known. Nevertheless, converging pieces of evidence suggest that the Soviets have been fairly tough with the East Europeans and are likely to become even tougher.

In 1975, following the OPEC oil price revolution, the Soviets insisted a year ahead of schedule on a revision of the old CEMA pricing practice according to which prices of goods were fixed for five-year intervals on the basis of the average world market price for a preceding fixed interval. The new formula, which represented a compromise between what the Soviets wanted and what the East Europeans argued they would be able to bear, dictated that prices would change each year to mirror the average price over the immediately preceding five-year interval. Since the average price of oil and

other fuels tended to rise much faster than the average prices of those goods with which the East Europeans paid for fuel delivered under five-year agreements, the cost of the so-called “planned” oil deliveries—the largest share of oil sold by the Soviets to Eastern Europe—rose dramatically.

A Western estimate of the rate of increase in the price of Soviet oil delivered to CEMA since 1975 is presented in table 7. There was a large increase (85 percent) in 1975, followed by a lull in 1976 (10 percent), and then substantial increases in 1977 (28 percent), 1978 (24 percent), and 1979 (17 percent). According to this estimate, the Soviet price reached 83 percent of the price paid by the West to OPEC in 1978. Because of the steep rise in OPEC prices during 1979, the gap between CEMA and OPEC prices probably widened sharply once again by the end of 1979.

in 1979 the price of Soviet crude to Poland was 79 percent of the price paid by the Poles for hard currency crude imports. Another report indicates that in 1979 Soviet crude oil was 20 percent cheaper for Poland than Nigerian crude. This figure—essentially a 20 percent discount—was probably applicable for the East European states as a whole at the beginning of 1979, before the big OPEC price jumps. It must be borne in mind, however, that there are significant differentials in the prices paid for oil by individual countries depending upon reciprocal credits and prices presented to the Soviets by the East Europeans, different mixes of crude oil and products, transportation costs, and political concessions.

From the Soviets’ standpoint, the five-year moving average pricing formula has meant a major sacrifice of potential hard currency earnings, which they have accepted in order to soften the blow to Eastern Europe of rising world fuel prices. Without this assistance, the East Europeans would have had to retrench already in the second half of the 1970s. East European complaints about the economic validity of the OPEC price

Table 7

Prices of Soviet Oil Exports to CEMA

	Average Price in Rubles of Soviet Exports of Crude and Products to CEMA Countries (1)	Yearly Percentage Change in Average Price of Soviet Exports of Crude and Products to CEMA Countries (2)	(1) as Percent of OECD Oil Import Price (3)	Estimated CEMA Lagged Average Price as Percent of OPEC Price (4)	Yearly percentage Change in Price of Soviet Exports of Crude to Poland (5)	Price of Polish Imports of Crude From USSR as Percentage of Price of Hard Currency Imports (6)
1970	15.5	-0.9	104.7	NA	NA	NA
1971	15.6	0.9	80.8	NA	NA	NA
1972	15.5	-0.9	83.3	NA	NA	NA
1973	16.0	3.5	75.8	NA	0.1	66.0
1974	18.1	13.4	29.7	NA	0.2	18.0
1975	33.5	85.1	52.8	49.0	138.0	52.0
1976	36.8	9.9	52.3	48.6	8.0	55.0
1977	46.9 ¹	27.8 ¹	62.7	60.6	23.0	64.0
1978	57.9 ¹	23.5 ¹	83.4	83.2	23.0	78.0
1979	67.6 ¹	16.7 ¹	87.0 ¹	64.3	22.0	79.0
1980	70.9 ¹	5.0 ¹	83.0	44.8 ¹	NA	NA

¹ Estimated.

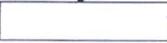


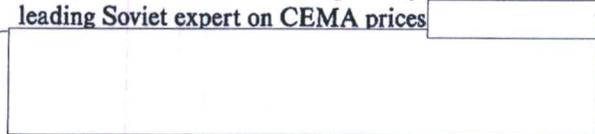
base used in determining Soviet prices is unlikely to have made much of an impression on Soviet negotiators. The evidence suggest that as CEMA prepares for the 1981-85 five-year plan period, the Soviets intend to intensify rather than relax the price pressure on their East European clients. 

First, the Soviets apparently are getting ready to increase the share of so-called "above-plan" oil in total oil deliveries to Eastern Europe. There is some evidence of this in 1979 negotiations with Hungary and Czechoslovakia. This oil would be paid for either in high-quality hard goods or hard currency. The net effect, then, is that the Soviets would simply be withdrawing a given amount of oil from the Western hard currency market for sale on the East European hard currency market. Moreover, the Soviets have given signs of unwillingness to agree to predetermined prices for such oil. During difficult negotiations with the Bulgarians over long-term trade relations in

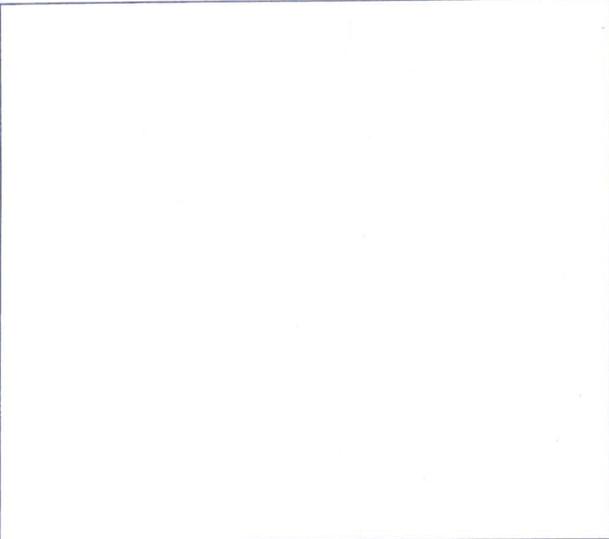
September 1979, the Soviets refused categorically to agree to provide "liquid fuels" in any specific amounts or at preagreed prices, but agreed only to deliver additional quantities of oil on a nonplan basis with prices negotiated at the time of sale. 

Second, there is converging evidence that the Soviets have been seriously considering changing the five-year base for calculating moving average world-market prices to a three-year or even shorter base, which would raise the price of Soviet oil to Eastern Europe even closer to the OPEC level. 

This possible shift has been separately noted by a leading Soviet expert on CEMA prices 

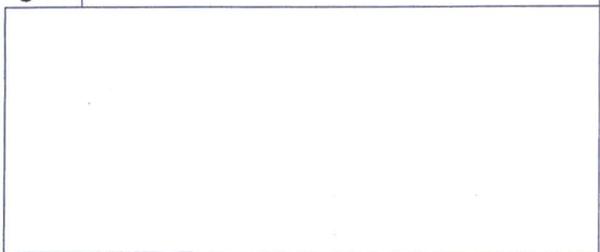


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If anything, a "take it or leave it" attitude is frequently detectable on the Soviet side. The Soviets, whose rising trade surplus with Eastern Europe helped cushion the impact of escalating oil prices in the second half of the 1970s, have been very hard-nosed toward requests for credits over 1981-85, although they may grant Poland some relief. At the same time, the Soviets are said to have leaned on the East Europeans to increase their contribution to the Warsaw Pact and have evidently sought to shift onto East European shoulders more of the foreign aid burden. Naturally, it is always possible for the Soviet leadership to reconsider and make concessions if this seems warranted by the security or economic situation in individual East European states. But at the moment the Soviet position on oil prices appears to be unyielding.

Third, and even more threatening, are indications that the Soviets might be considering insisting on receiving a larger proportion of high-quality hard goods even for "planned" oil delivered under five-year agreements. Such a move would represent a painful break with existing policy, which permitted the East Europeans to pay for much of their oil imports with overpriced soft goods



the USSR had recently concluded a 10-year agreement with East Germany under which, starting in 1982, East Germany would pay average world market prices for oil.

Finally, no Soviet concessions apparently will be made in the broader area of CEMA finances. Where the Soviets have pressed in 1979 for additional East European investment in Soviet extractive industries, they do not seem to have addressed the East European complaint that East European states must contract high-interest hard currency loans themselves while making low-interest loans to the USSR.

Alternative Sources of Oil for Eastern Europe

The dilemma facing the Soviets is clear. If they are unprepared fully to meet East European oil needs at an affordable cost, they are in effect telling the East Europeans both to cut back economic growth and consumption and to find oil elsewhere. Fundamentally, additional supplies of oil can now be acquired by Eastern Europe only for hard currency. To get hard currency, Eastern Europe has three possible sources:

- Soviet hard currency loans or gifts.
- Hard currency trade with the Western industrialized nations plus hard currency loans.
- Hard currency trade with what the Soviets refer to as "solvent" developing nations—largely the oil producing states and their beneficiaries.

The only viable long-term solution for Eastern Europe—apart from Soviet-managed military adventures in the Middle East—is trade; but trade requires meeting world standards of quality, service, and so on. Eastern Europe currently is hard-pressed to meet these standards. The question is, to what extent can it do so without a further expansion of East/West trade and technology acquisition from the West? The answer to this question turns on the prospects for "specialization and cooperation" within CEMA, on the one hand, and for increased borrowing from the West on the other.

The Magnitude of the Problem. How much oil will the East European states "really" need to import for hard currency, assuming that Soviet deliveries remain flat for 1981-85? Unfortunately, there is no quick answer to this question. Nominal East European "need" depends, in the first instance, on the requirements for operating the projected capital stock available in the future, which is a function of existing capital stock, investment, and technology imports. Investment, in turn, will hinge on decisions about minimum tolerable levels of consumption.

The picture becomes more complex once realistic constraints are taken into account in defining "need." The need for oil imports then depends upon the projected capital utilization rate—which is determined by the total availability of all forms of energy in the economy. It also depends upon hard currency export earnings, debt-service obligations, the availability of Western credits, the balance foreseen between energy (oil) and nonenergy hard currency imports, and the price of imported oil. Hard currency export earnings depend on Western market conditions, the competitiveness of East European goods, and the extent to which hard goods are allocated to the CEMA market. The availability of Western credits depends upon liquidity in the West and the outlook of Western lenders, on the one hand, and the debt-service ceiling East European leaders are prepared to accept on the other.

Over any prolonged period there is probably a level below which nonenergy hard currency imports cannot fall without severely disrupting the East European economies. The East European countries may already have approached this floor for imports of industrial materials, capital goods, and high-technology products, which make up the bulk of hard currency imports.

In the past, East European economic growth has been promoted by substantial annual increases in total oil imports. However, when the large Romanian imports are excluded, the size of annual increments declines steadily from 10 percent in 1975 to 2.1 percent in 1979 (see table 8). If Romanian oil trade is excepted, East European imports of crude oil from OPEC countries remained a constant 10-11 percent of total crude

imports between 1975 and 1979. There was, however, wide variation among East European countries in the share of oil imported from OPEC.⁸

As was noted above, in 1978 the non-Soviet CEMA countries were proposing an average annual increase in Soviet oil deliveries between 1980 and 1990 of 5.8 percent, or 5 percent without Romania.⁹ Obviously, however, if Soviet exports were held flat at 1980 levels, but East European states wanted to attain the same rate of overall growth of oil imports, OPEC imports would have to be accelerated at a far faster pace than 5 percent to make up the difference, since these imports at present constitute only a small proportion of total crude imports.

Given flat Soviet oil deliveries, the average annual rate of increase in East European hard currency oil imports that would be necessary to meet fully the operating requirements of projected capital stock over the 1981-85 period would be very high indeed. Preliminary calculations suggest that if Soviet oil deliveries for the period 1981-85 were stabilized at the 1980 level, and East European energy consumption were to continue to rise at rates experienced in the 1970s, Eastern Europe would need to import about 1.5 million b/d of oil from the West by 1985. This volume might cost about \$30 billion annually—substantially in excess of any realistic East European import capacity. Thus the East European states will have to settle for less energy, lower capital utilization rates, and lower rates of growth of GNP.

A simple macroeconomic simulation model designed to examine the relationships between energy supply, foreign trade, and economic growth in Eastern Europe during 1981-85 provides a rough idea of what "affordable" oil imports might be in this period.¹⁰ A baseline scenario that assumes certain rates of employment growth, domestic energy output, hard currency export earnings, and maximum debt service ratios, and

⁸ In 1979 the range of OPEC shares of total imported oil was as follows: Romania—97.5 percent, Poland—21.1 percent, Hungary—15.0 percent, Bulgaria—10.3 percent, East Germany—9.8 percent, and Czechoslovakia—1.6 percent.

Table 8

East European Crude Oil Imports

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
Crude imports (thousand b/d)										
Total	790	911	1,086	1,235	1,274	1,403	1,569	1,658	1,811	1,899-1,935
Total without Romania	744	854	1,029	1,152	1,183	1,301	1,399	1,481	1,553	1,585-1,595
Bulgaria	114	151	166	193	213	209	217	235	253	253
Czechoslovakia	196	230	251	284	293	317	342	366	372	372-378
East Germany	207	218	297	321	329	340	361	381	398	410
Hungary	87	98	121	131	136	169	177	171	198	200-204
Poland	140	157	194	223	212	266	302	328	332	350
Romania	46	57	57	83	91	102	170	177	258	314-340
Annual increase in crude imports (percent)										
Total	14.6	15.5	19.3	13.5	3.2	10.2	11.7	5.9	9.2	5.0-6.9
Total without Romania	9.0	14.9	12.1	11.8	2.7	10.0	7.4	6.1	4.7	2.1
Bulgaria	11.7	32.5	9.7	16.6	10.1	-.1	3.6	8.6	7.7	0.0
Czechoslovakia	4.8	17.5	9.3	12.8	3.4	8.1	7.8	7.3	1.6	0.0-1.6
East Germany	11.2	5.7	36.1	8.0	2.4	3.4	6.1	5.6	4.7	3.0
Hungary	16.3	12.5	24.0	8.1	4.0	23.7	4.2	-0.1	15.9	1.0-3.0
Poland	5.6	12.0	23.6	14.8	-5.0	25.7	13.4	8.7	1.3	5.4
Romania	-	24.7	1.0	44.2	9.5	12.1	66.7	4.4	46.6	21.7-31.8
Crude imports from OPEC (percent of total)										
Total	12.9	15.6	18.3	19.1	16.2	16.9	21.2	19.6	24.2	25.9-26.8
Total without Romania	7.6	9.9	13.8	13.3	9.8	10.4	11.6	10.0	11.6	11.1-11.7
Bulgaria	16.5	23.1	23.1	22.2	15.2	5.7	7.5	7.8	10.3	10.3-7.9
Czechoslovakia	3.9	7.3	5.3	8.0	2.5	2.1	4.5	7.4	4.8	1.6-3.2
East Germany	10.7	10.7	24.5	18.8	14.0	11.1	11.2	10.7	11.1	9.8
Hungary	9.1	10.0	14.5	12.1	10.1	17.5	12.1	9.6	14.1	15.0-16.7
Poland	0.0	0.0	0.0	5.1	7.8	18.2	22.9	22.1	19.3	21.1
Romania	100.0	100.0	100.0	100.0	100.0	100.0	97.1	88.7	100.0	97.5-97.9

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assumes that Soviet gas deliveries will increase while oil deliveries are held constant, indicates that Eastern Europe would be able to cover only a small fraction of its projected energy deficit by 1985 through hard currency oil purchases.

Even with some relaxation of assumptions about the minimum necessary volume of nonoil hard currency imports and tolerable debt service ratios, the model suggests that at best hard currency oil imports could not greatly exceed the level already reached at the end of the 1970s. The energy shortfall produced by this failure to meet oil import requirements would lower capital utilization rates throughout Eastern Europe, which in turn would produce dramatic slowdowns in economic growth: GNP growth between 1981 and 1985 would decline to barely half the historical rate of 4.4 percent per year achieved between 1971 and 1978. For most East European countries the projected GNP growth rates imply almost no increase at all in per capita growth—and this, in turn, implies little hope for improvement in the standard of living.

However, the Soviets might find themselves compelled to cut oil deliveries to Eastern Europe between 1981 and 1985 rather than hold them constant at the 1980 level. An alternative scenario that assumes the Soviets gradually halve oil exports to Eastern Europe by 1985 indicates that this would reduce GNP growth rates by half or more in all East European countries except Poland and Romania. GNP growth rates ranging downward from 1.5 percent per year in these other four countries would translate into even lower per capita growth and in some countries (for example, Czechoslovakia) into an absolute decline in the standard of living.

The model does suggest that there may be significant differentials among East European countries in their sensitivity to reductions in Soviet oil deliveries. Results from the model confirm that Poland and Romania—the two countries with the largest domestic energy supplies—are much less affected by Soviet oil cutbacks than Czechoslovakia, Bulgaria, Hungary, and East Germany. (In interpreting this outcome it should be borne in mind that the model assumes complete substitutability of fuels, which has the effect of exaggerating the extent to which Poland could com-

pensate with coal for reduced oil imports from the USSR.) If the Soviets were interested in spreading reductions in GNP growth equally among the East European countries, their indicated strategy would be to avoid an across-the-board equal percentage cut in oil deliveries and adjust the cutbacks according to the differential vulnerability of each country (a calculation that would have to take real fuel substitutability into account).

The Soviet Response to the East European Dilemma. Soviet attitudes toward the East European hard currency oil import dilemma appear to be ambivalent and dependent on specific situations. To some extent, the Soviets may believe—or at least hope—that the CEMA energy strategy outlined above will satisfactorily cope with the dilemma, and privately, many Soviet officials probably feel that the East European need for hard currency oil is an East European problem. Yet Soviet policy toward CEMA relations with Western trading partners and with oil-producing nations does affect how the dilemma is likely to be resolved.

In general terms, and in line with the whole CEMA integration drive, Soviet leaders—especially Kosygin—have continually spoken in favor of increasing the relative share of intra-CEMA trade and of reducing dependence on trade with the capitalist West. At the June 1979 CEMA session, for example, Kosygin declared: “The CEMA countries are the only industrially developed zone in the world to have escaped the heavy blows which the energy crisis is dealing to the capitalist economy. Our long-term aim of the planned exploitation of, above all, our own energy resources has justified itself.” In the speeches of Soviet leaders and in the articles of Soviet specialists there is no mistaking the autarkic thrust of arguments that stress protection of the Bloc economies from the world economic crisis, stagnation of the capitalist economy, the large and stable Soviet market for East European goods, and so forth. This autarkic undercurrent, which rationalizes a strengthening of bilateral economic ties between the USSR and each of its client states in Eastern Europe, is firmly based in the politics of Soviet-East European relations in the entire postwar period; it cannot be ignored.

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Obviously, however, Soviet spokesmen deny any Bloc autarkic intentions, and some officials do value the benefits of trade between capitalist and CEMA countries more highly than others. All Soviet authorities would probably agree for the record with the dialectical proposition that "socialist integration" actually enhances the opportunities for East European states to trade with the West by capitalizing on specialization of production and economies of scale.

An important concern of the Soviets has been to exercise control over East European trade relations with the West. In this connection they have been unyielding in their position on the still-unconsummated negotiations between CEMA and the Common Market, in contrast with most of their allies—all of whom except East Germany have already signed at least one bilateral sectoral agreement with the EC. (East German goods gain privileged access to the Common Market through "inner-German" trade with West Germany.) The Soviets have also discouraged East European countries from joining GATT and the IMF.

In practice, the Soviets have been ambivalent about East European trade with the West. From an economic standpoint, trade with Eastern Europe at the expense of trade with the West could represent a net liability for the USSR, and some Soviet officials for this reason might not object to integration proceeding at a leisurely pace. Soviet pressure on the East Europeans to redirect trade from the West to the USSR is nevertheless well documented.

[Redacted]

[Redacted]

East European debt to the West has been a burdensome issue to Soviet policymakers, not least because East European borrowing has been only partly subject to Soviet influence or control. The Soviets might well have been more inclined to regard East European hard currency debt as a potential source of East European dependence on the West and of Western leverage, than as a potential source of Bloc leverage on the West. The Soviets have been concerned with the implications of excessive East European indebtedness to the West for their own hard currency borrowing. They have publicly rejected any responsibility for coming to the rescue of insolvent East European states (according to the so-called "umbrella theory" prevalent in Western banking circles), but have privately cajoled the East Europeans where necessary to discipline themselves. [Redacted]

The same ambivalent Soviet attitude can be observed in regard to Czechoslovakia and Bulgaria. [Redacted]

[Redacted] a major issue had been the extent to which the Soviet Union or the West would contribute to the modernization of Czechoslovak industry and the renewal of its fixed assets. On the one hand, Czechoslovak relations could not be weighted toward the West; on the other, the USSR could not by itself meet Czechoslovak needs, even if it were willing to extend ruble credits. Thus, to some extent, seeking Western hard currency credits was an inescapable course. [Redacted]

The critical countries from the standpoint of hard currency debt have been Poland and, to a lesser degree, Bulgaria and East Germany. At the end of 1978 the Polish debt service ratio was 79 percent, the Bulgarian 46 percent, and the East German 51 percent; we estimate a 95 percent debt service ratio for Poland in 1979 and over 100 percent in 1980. [Redacted]

[Redacted] the USSR was concerned that Bulgaria might fall into bankruptcy because of its overambitious economic program. Yet [Redacted] despite repeated requests from the Bulgarians for hard currency assistance, the USSR had granted Bulgaria only \$100 million in urgent hard currency aid, with the stipulation that this loan would be the last such aid. Later in 1978 the Bulgarians continued to bombard the USSR with requests for hard currency loans, machinery, and oil outside the plan—but without results. [Redacted]

[Redacted]

[Redacted] In short, while discouraging growing East European indebtedness to the West in principle, the Soviets have tended when hard pressed to look the other way rather than meet East European hard currency borrowing needs themselves. [Redacted]

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What will happen in the face of increasing Soviet pressure on the East European states to orient their trade toward the Soviet Union is uncertain. Despite the talk about integration, one close observer of trade statistics has concluded that the years 1975-78 "do not appear to have been marked by any dramatic turn toward closer Soviet-East European economic ties, beyond what was already in the works before 1975." ¹¹ It is undoubtedly true that at least some East European regimes—especially the Romanian and, to a lesser extent, the Polish and Hungarian—have, in the 1970s, sought to strengthen their trade relations with the West for both economic and political reasons. None of the East European states have been altogether happy with trading practices in CEMA, and some have clearly felt that CEMA prices discriminated against them. []

Yet the East European attitude toward integration with the USSR is complex, and by no means simply one of unwilling compliance. The hard truth is that the West today may offer even less of a way out economically for Eastern Europe than the East. The economic pressures to which they were being subjected led at least the Polish, Hungarian, and Bulgarian leaders to conclude in 1978-79 that the proposal of closer economic ties tendered by Brezhnev in 1977, which was to be embodied in 10-year bilateral programs of specialization and cooperation (1981-90), was an offer they could not refuse. Thus in those years the Bulgarians themselves took the initiative of attempting to reach a mutually satisfactory long-term agreement on cooperation with the Soviets. []

Similarly, [] by the summer of 1978 the Polish leadership accepted the need for greater integration of its economy with that of the USSR. The policy of purchasing Western technology against the sale of goods to the West was regarded as having failed, and the Poles saw increased trade with the Soviet Union as the only way in which they could market their goods and obtain the raw materials and semifinished products necessary to keep Polish factories running and Polish consumers satisfied. Top Hungarian policymakers reportedly had reached the same conclusion by the first half of 1979; the only way

¹¹ Martin J. Kohn, "Soviet-Eastern European Economic Relations, 1975-78," *Soviet Economy in a Time of Change*, Vol 1, p. 247. []

for Hungary to solve her current economic problems was through close cooperation with CEMA. []

This policy evolution did not mean that the leaders of these countries had given up all hope for expanded economic ties with the West, but it did represent a marked shift toward a more "Eastern" orientation, especially in comparison with expectations of the early 1970s. []

Unfortunately for the East Europeans, the terms on which they have wanted to integrate (including the scale and price of oil imports desired) have not been acceptable to the Soviets: it has been the Soviets, in fact, who have held up the signing of agreements that would permit the East Europeans to solve their energy and raw materials problems by "turning inward." What this Soviet posture implies is that the East Europeans must attempt to expand exports to *both* the West and the USSR in order to get oil. Inevitably, consumption will be tightly squeezed as the East European states try to expand exports in both directions while struggling to reduce Western imports. []

Special Deals With OPEC States? Because of the hard currency difficulties just described, East European countries have made a concerted effort over the past five years or so to obtain oil through government-to-government deals with oil-producing countries. Ideally, the East European countries have wanted to arrange long-term barter agreements, in which oil would be traded for military and other goods, but they have also been keenly interested simply in marketing all types of goods and services for hard currency, which could then be used to purchase oil. []

East European relations with the oil-producing countries have inevitably taken place in the shadow of Soviet Middle Eastern policy, which—for broad political and military strategic reasons as well as short-term calculations of economic profit—has had the effect of encouraging the very OPEC price rises that have had such disastrous consequences for Eastern Europe. With the partial exception of Romania, the East European regimes have nevertheless accepted OPEC, the oil price rises, and the confrontationist orientation of the more radical OPEC regimes as givens of the

situation that define their own opportunities and strategies. Some East European regimes, notably the East German, appear enthusiastic about the potential opportunities that Middle East tensions provide for gaining access to oil and hard currency from the more radical Middle Eastern states. Others evidently have deep misgivings about the likely outcome of OPEC developments.¹² However, they have little choice but to play the game on terms defined by the USSR. []

The idea that there should be a common approach by the CEMA countries to the oil-producing states goes back at least to the 1971 Complex Program of CEMA integration. Probably linked to this idea was the creation in 1973 by CEMA's International Investment Bank of a Special Fund of 1 billion transferable rubles to promote projects in LDCs. In 1975 CEMA signed cooperation agreements with Iraq and Mexico which called, in the case of Iraq, for multilateral cooperation in the spheres of the oil and gas industries, chemicals, agriculture, and foreign trade, and, in the case of Mexico, for cooperation in the utilization of new technologies, geological prospecting, development of

¹² An article in the Polish press in November 1979 stated: "OPEC was established in 1960 as an organization that, with the full support of the Third World countries, fought to recover the right to its members' own natural riches. That struggle was justified, and it ended in a brilliant victory. But as the years have passed OPEC has become a cartel for the privileged producers of raw materials, and the prosperity of the rest of the world, to a greater or lesser extent, depends on that cartel. It is hardly surprising that it enjoys this privilege without moderation. But it is also hardly possible not to see that this lack of moderation may end in a serious catastrophe from which even the OPEC member countries themselves would not benefit." (*Zycie Warszawy*, 8 November 1979, in *Daily Report*, 13 November 1979.) Commenting on the June 1979 OPEC price rises, a Hungarian observer declared: "These countries (such as Hungary) suffer directly from the rise in the price of oil and raw materials, but they are not yet in a position to pass on these increased costs in their export prices. These countries suffer a considerable worsening in their trade position and this is one factor which makes the decision by the OPEC countries more serious. . . . I feel that the consequences of this decision will be much more serious than we appreciate at present. There is a danger that the OPEC countries will not be able to spend their increased incomes as easily as they have done up to now. . . . This is another factor that makes this decision very serious, and I feel that this price increase by OPEC was overly hasty and irresponsible. . . . Worldwide inflation will accelerate. The inflation rate in the developed capitalist countries and particularly in the United States, already in double digits, will further accelerate and the effects of this on the world economy will be extremely serious. This is one influence that can be expected. Another is that the rate of economic growth will probably decrease by 1 percent. Third, the financial markets of the world will once again come into turmoil. . . ." (*Radio Budapest*, 30 June 1979, in *Daily Report*, 2 July 1979.) []

foreign trade, finances, and construction of joint enterprises. That same year it was proposed at a CEMA symposium hosted by the USSR Academy of Science's Institute for the Economy of the World Socialist System (directed by a vocal advocate of CEMA integration, Oleg Bogomolov) that a special CEMA organ be established to cooperate with LDCs in the fuel and raw materials sectors.¹³ []

The notion of a CEMA link with oil-producing states was elevated to a declared policy objective in the 1978 energy Target Program, which called for "lifting the level of production and mutual deliveries within the CEMA member country community as well as development of their cooperation in regard to the needed fuel and raw materials from the Third World countries." The Target Program specifically stipulated that there should be

comprehensive incorporation of the crude oil and natural gas resources of the developing countries on a long-range basis through coordination of the common priority of interested countries, the development and perfection of utilized forms and methods of cooperation with these countries (broadening technical and economic assistance to the developing countries on the basis of long-range agreements; organization of joint companies with the petroleum-producing developing countries for searching for oil, equipping the oilfields, delivery and export of crude oil on the basis of prorated participation of the CEMA member countries in the national companies, etc.). []

¹³ "In the course of the discussion the unanimous opinion emerged that cooperation in the fuel-raw materials areas with third countries should develop primarily on the state-to-state level, drawing into the process the state organizations of developing countries. In this connection, in the opinion of the symposium participants, it would be expedient to coordinate the actions of the socialist countries through harmonization of positions within the existing organizational framework of CEMA, but that then it might be necessary for this purpose to create an international economic organization for cooperation in the fuel-raw materials branches. Bulgarian scholars, for example, think that this organization could solve a broad circle of questions—from conducting geological work to granting credits in the form of supplies of equipment. With its assistance there could be provided the collective cooperation of the CEMA countries with the developing states that are the basic producers of important types of mineral raw materials and fuel." (*Izvestiya AN SSR: seriya ekonomicheskaya*, 1976, No. 4, p. 159). []

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A subprogram of the Target Program indicated that this activity was intended to "strengthen the purchase of oil from Iraq while taking into consideration the Iraqi proposal for cooperation with the CEMA member countries in building plants in Iraq on a multilateral basis." The CEMA Permanent Commission for Coordination of Technical Assistance and the representative of CEMA in the Joint CEMA Commission for Iraq were given the task of elaborating concrete proposals. [redacted]

The range of organizational mechanisms that the Soviets publicize to promote CEMA interaction with oil-producing countries include mixed trading companies, mixed companies for the exploration and development of natural resources, mixed engineering and consulting and construction firms, loans from OPEC countries for construction of production facilities in Bloc countries, and joint financing by Bloc and OPEC countries of projects in third countries. Lest there be any question, Soviet publicists inform their readers:

The participation by socialist states in the mixed enterprises of the developing countries differs in principle from the practice of Western monopolies. To begin with, it is carried out on authentic principles of equal rights and mutual benefit, does not pursue political goals and does not set for itself the task of perpetuating the presence of the socialist partner in the given developing country ad infinitum. One must particularly stress the inadmissibility of confusing joint enterprises with foreign concessions. . . . [redacted]

Despite the evidence of Soviet-sponsored CEMA interest in a coordinated approach to oil-producing countries, it is not clear how much joint activity there has been in practice. Probably the Soviets have made the greatest effort to coordinate efforts in the lucrative and politically sensitive area of arms trade and military assistance. Here the record suggests that:

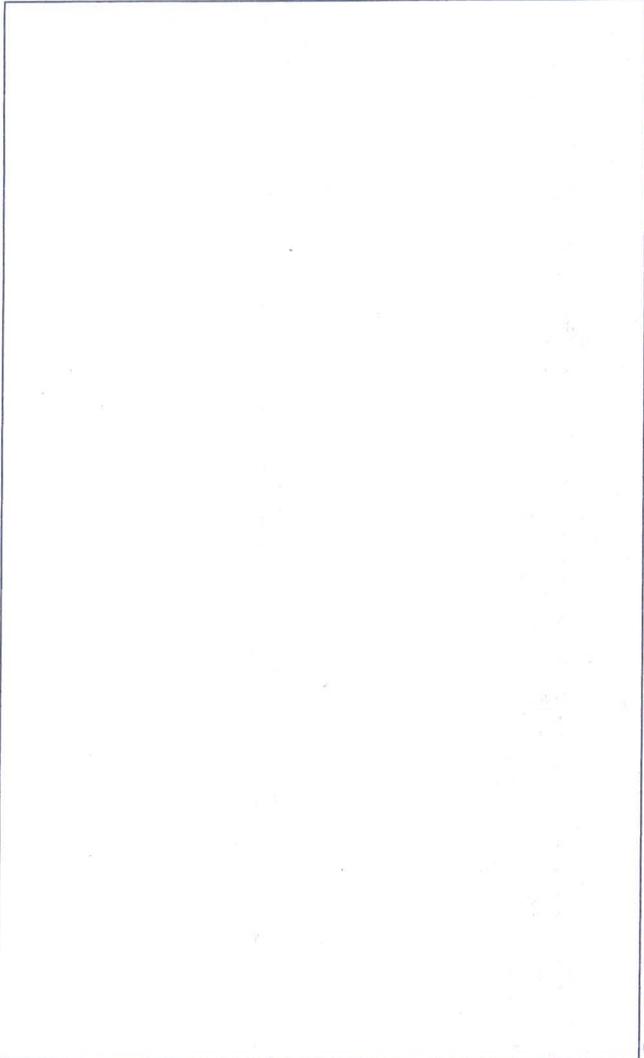
- There has been some "division of labor" among the East European states, although this has probably been dictated largely by the historically-evolved production profiles of East European industry (for example, the traditional manufacture of certain types of weapons by Czechoslovakia).

- The Soviets on various occasions have suggested, approved, or vetoed the sale of military hardware and training services by East European states to Middle Eastern governments, and have used East European states to front for them in delicate arms transfers. Through licensing or coproduction arrangements the Soviets are able to prevent sales of major weapons systems if they wish. Soviet power in this field is probably institutionalized in some fashion, but it is doubtful whether the actual mechanisms used embody any genuine *multilateral* CEMA participation.
- The proportion of known multilateral military deals involving two or more CEMA members and an oil-producing country, in contrast with straight bilateral deals, is small.
- There is some evidence of latent competition among East European states for military-related business in the Middle East, and there is clear evidence in certain instances of the preference of Middle Eastern regimes for deals with East European suppliers rather than the USSR.
- In the search for military sales, East European states may have attempted to circumvent Soviet monitoring altogether. For example, it is possible that in 1978 and 1979 the Poles negotiated behind Moscow's back to sell replacement engines for Soviet-built tanks to Egypt. [redacted]

In other areas, the evidence of joint CEMA collaboration with oil-producing countries is mixed. A 1978 Bulgarian article indicated that "just the first steps" had been taken in the trade field. The US Embassy in Moscow, reporting on CEMA relations with Mexico and CEMA oil and gas delegations to Iraq in 1977 and 1978, observed that it was "difficult to perceive to what extent cooperation agreements with these LDCs are multilateral in nature (and thus CEMA-related) or strictly bilateral." [redacted]

[redacted] in 1978 that besides bilateral arrangements with Iraq and Libya, East Germany also imported some oil from Iraq through its membership in the CEMA-Iraq Joint Commission. [redacted]

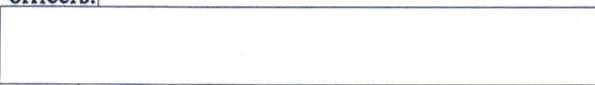
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The pattern of Middle Eastern oil deliveries is reflected to some extent in tables 9 and 10, which unfortunately are based on incomplete data and do not mirror purchases by some countries (notably Poland) from the multinationals. Romania, satisfying its big oil import needs, takes a large share of the deliveries from all the suppliers listed except Algeria; and in 1977 and 1978 its share actually increased from four of the six suppliers (Iran, Iraq, Libya, and Kuwait) (see table 9). While Iraq is the only Middle East supplier that delivered oil to most or all of the East European countries in the 1976-78 period (which is the pattern that one might expect to follow from collaboration inspired by the 1975 CEMA agreement with Iraq), the shares of individual East European countries except Hungary are not as stable as one might have anticipated (see table 10).

Overall, it appears that Romania has had the most stable supply pattern, followed by Hungary. Other East European countries have—for whatever reasons—changed the proportion of imports from various suppliers more frequently, which may portend less of a commitment by suppliers to maintain deliveries in the future. Bulgaria, Czechoslovakia, Romania, and Poland, in that order, were—proportionately speaking—most exposed to an Iranian oil cutoff after 1978. East European countries were very dependent in the 1970s on Iran, Iraq, and Libya for their supply of OPEC oil.

Indeed, there has been outright competition among the East Europeans for a special relationship with OPEC nations. When the Shah visited Eastern Europe in 1978, "proletarian internationalism" gave way to unseemly attempts by East European regimes to seek national advantage through flattering him. Reporting in August 1978, the US Defense Attache in Syria observed that there was "extreme competition" among Bloc countries for Syrian orders, and that Soviet attempts to orchestrate prices were defeated by a system of illegal rebates and bribes paid to Syrian officers.



From the East European standpoint it has been very important to obtain oil from these countries at less than world hard currency prices, and this will become critical as Eastern Europe becomes more dependent on increasingly costly OPEC oil. In the past the East European states have had some success in bartering arms, military training, and development assistance for oil, or arranging concessionary prices for the oil they receive, and some deliveries now are still taking place on special terms. But the preferences of oil suppliers seem to be moving away from such deals.

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Table 9

**East European Shares of Known Middle Eastern Oil Exports
to Eastern Europe**

	1973	1974	1975	1976	1977	1978
From Algeria						
Bulgaria	100	45	15	5	52	
Czechoslovakia						
East Germany					8	100
Hungary			29			
Poland		55	56	95	40	
Romania						
Total of known origin (thousand b/d)	4.9	9.1	14.0	7.3	3.5	6.2
From Iran						
Bulgaria	11	8		11	11	11
Czechoslovakia					11	2
East Germany						
Hungary			3	7	3	2
Poland					8	11
Romania	89	92	97	82	67	73
Total of known origin (thousand b/d)	58.7	32.7	41.2	73.6	89.4	136.5
From Iraq						
Bulgaria	27	21	5		4	1
Czechoslovakia		6	7	5	6	2
East Germany	1	47	48	35	26	13
Hungary	72	16	40	18	17	16
Poland						14
Romania		11		42	48	54
Total of known origin (thousand b/d)	20.3	75.1	60.0	90.4	83.4	90.0
From Kuwait						
Bulgaria						
Czechoslovakia						
East Germany						
Hungary						
Poland			28	35	36	
Romania			72	65	64	100
Total of known origin (thousand b/d)			30.5	30.6	34.6	22.0

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Table 9

East European Shares of Known Middle Eastern Oil Exports to Eastern Europe (continued)

	1973	1974	1975	1976	1977	1978
From Libya						
Bulgaria	41	52	12	10	18	26
Czechoslovakia						
East Germany			1	1	30	16
Hungary				11		
Poland						
Romania	59	48	87	79	53	58
Total of known origin (thousand b/d)	43.8	8.3	19.8	43.0	33.1	30.9
From Syria						
Bulgaria	29					
Czechoslovakia						
East Germany	12	39	49	76	53	70
Hungary	10					
Poland						
Romania	50	61	51	24	47	30
Total of known origin (thousand b/d)	12.0	6.6	9.8	6.8	11.4	10.0

According to a Hungarian publication, Hungary has conducted all its trade with Arab countries since 1976 in hard currency. A 1978 Bulgarian article stated that Bulgarian barter trade with Iraq terminated in 1976 and that it continued only with Algeria and Iran. A more recent report from the US Embassy in Algiers indicates that the Algerians have shifted from trade through clearing accounts to "cash on the barrelhead and hard currency payments," and that the East Germans, Hungarians, Poles, and Romanians had shifted completely to dollar payment transactions. (S NF NC)

In January 1978 [redacted] East Germany was getting price discounts for participating in developing Syrian oilfields, but how long this will continue is unknown. In the summer of 1979 it was known that East Germany had earlier proposed barter deals to Egypt, Iran, and Libya, but no agreements were known to have been signed. In January 1980 a

Polish foreign trade publication observed that "events in Iran have unfavorably affected the deliveries from that country to certain European CEMA states. The new authorities are not interested in barter understandings, within the framework of which, for example, East Germany counted on the Iranian raw material in exchange for the deliveries of railway cars." However, a January 1980 report from the US Embassy in Warsaw observes that while Polish foreign trade officials claim that Poland pays hard currency for all non-Soviet oil imports, published projected exports to Iraq for 1980 suggest that whatever the formal payment arrangements may be "barter of equipment and construction projects in exchange for oil is the main theme in Polish-Iraqi trade, as it is with Libya." [redacted]

Table 10

Percent

**Shares of Middle Eastern Countries in Known Middle East Oil Imports
by East European Countries**

	1973	1974	1975	1976	1977	1978
By Bulgaria						
Algeria	13	15	30	3	9	
Iran	17	10		64	47	60
Iraq	14	59	39		15	7
Kuwait						
Libya	47	16	31	33	29	32
Syria	9					
Total of known origin (thousand b/d)	38.3	27.2	7.2	13.0	20.0	24.8
By Czechoslovakia						
Algeria						
Iran					67	53
Iraq		100	100	100	33	47
Kuwait						
Libya						
Syria						
Total of known origin (thousand b/d)		4.2	4.0	4.9	15.0	6.3
By East Germany						
Algeria					1	16
Iran						
Iraq	16	93	85	85	57	54
Kuwait						
Libya			1	1	26	12
Syria	84	7	14	14	16	18
Total of known origin (thousand b/d)	1.7	37.8	34.4	36.9	37.6	39.2
By Hungary						
Algeria			14			
Iran			4	20	14	9
Iraq	93	100	82	62	86	91
Kuwait						
Libya				18		
Syria	7					
Total of known origin (thousand b/d)	15.8	11.7	29.4	25.7	16.4	29.3

Table 10

Percent

**Shares of Middle Eastern Countries in Known Middle East Oil Imports
by East European Countries (continued)**

	1973	1974	1975	1976	1977	1978
By Poland						
Algeria		100	48	40	6	
Iran					35	41
Iraq						59
Kuwait			52	60	58	
Libya						
Syria						
Total of known origin (thousand b/d)		4.9	16.3	17.5	21.6	38.6
By Romania						
Algeria						
Iran	62	65	48	39	42	42
Iraq		17		26	28	30
Kuwait			26	13	15	9
Libya	31	9	20	22	11	18
Syria	7	9	6	1	4	1
Total of known origin (thousand b/d)	84.0	46.0	84.2	155.6	143.8	237.0

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If the prospects for barter deals—with the exception of Libya—do not appear especially bright at the moment, Soviet and East European leaders must be equally concerned over the prospects for larger purchases of oil from Middle Eastern governments even on more or less commercial terms. In November 1979, Polish party first secretary Gierek's economic adviser, Pawel Bozyk, characterized the search for oil suppliers as a

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constant headache. [redacted]

[redacted]

[redacted] Polish negotiations with Nigeria were being allowed to drift at the end of 1979 both because of the high price of the oil, and because Warsaw believed that if an agreement were concluded with Nigeria before the 1981-85 agreement was signed with the USSR, the Soviets would conclude that the Poles no longer needed increased supplies from them.

[redacted]

In October 1979 negotiations in the Iraqi-Hungarian Joint Commission, the Hungarians sought an increase in Iraqi deliveries from 1 million to 2 million tons annually. After a lengthy discourse by the Iraqis on the special ties of friendship and mutual interest that bound Iraq to the socialist countries, the Hungarians were turned down flat. This rejection followed an earlier turndown of an appeal by Deputy Premier Gyula Szeker during his visit to Iraq in April 1979. Hungary was also searching at this time for oil from Kuwait, Iran, and Saudi Arabia—but with no known success. [redacted]

[redacted] the East Germans may have found it necessary even in 1978 to buy a significant quantity of oil on the expensive spot market. [redacted]

In November 1979 [redacted]

[redacted] Romania was having serious difficulties obtaining oil in 1979, but would have a still harder time finding 14.5 million tons of crude in 1980. Romanian approaches to Kuwait were being rebuffed, and Romania had nothing to trade with Iraq that would entice the Iraqis to increase their deliveries. Romania was considering approaching the PLO to ask it to intervene on behalf of Romania with King Khalid of Saudi Arabia, and to intercede with other Persian Gulf states to make oil available to Romania. [redacted]

With Iran, however, Romania was luckier than other East European supplicants. Romania signed a 1979 contract for 2.5 million tons. In the May-June 1979 negotiations, Poland asked for 1 million tons but settled for 650,000, East Germany asked for 600,000

but settled for 200,000, Bulgaria asked for 700,000 but settled for 350,000, and Hungary asked for 600,000 but settled for 300,000. [redacted]

[redacted]

Data [redacted]

in late 1979 show a projected drop in total deliveries to the USSR and her CEMA allies of a little over 1 million tons in 1980 (9.5 million tons, down from 10.55 in 1979). Most of this decline was to be accounted for by a cutback in deliveries to the USSR, but Poland, East Germany, and Bulgaria were also to be cut. All of the CEMA states had sought increases. A Soviet oil trading official complained that although the CEMA members should enjoy preferential access by virtue of their close political ties to Iraq, they were, nevertheless, being treated the same as capitalist oil companies. He was uncertain whether the motives were political or economic. In the case of Bulgaria, at least, the motives were clearly political. Following a clash in Bulgaria between pro-Communist and Ba'athist Iraqi students in November, Iraq withdrew its ambassador from Sofia and reneged on its agreement to export oil to Bulgaria. At best, the East Europeans appear to face difficult times ahead in obtaining any substantial increase in oil deliveries from OPEC countries. [redacted]

The Future

Energy problems are only one factor that will influence the course of Soviet relations with Eastern Europe and the external world, and the interactions between this factor and others cannot easily be predicted. Therefore, the potential role of energy must be discussed largely with the "everything else being equal" proviso. Developments in East/West relations, elite politics in the East European regimes and in the USSR, world economic trends, the outcome of events in Iran and Afghanistan, and so on will obviously merge with energy issues in influencing Soviet perceptions and behavior. [redacted]

Declining East European "dependency"? The emerging Soviet response to the problem of East European energy supply will help ensure that growth rates in Eastern Europe will be well below the average rates of the 1970s and that there will be heavy strains on these economies. East European states will have to attempt to increase exports to both the USSR and the West in order to compensate for deteriorating terms of trade and pay for raw materials and fuel. Despite their perception of the need to keep consumption up as a prerequisite for maintaining political stability and labor productivity, East European leaders will continue to be compelled by the Soviet posture to reduce official targets for growth in consumption. Given annual rates of inflation [redacted]

[redacted] to exceed 10 percent, East European governments may be hard put simply to maintain present levels of consumption. Under these conditions, popular resentment toward the USSR and nationalist feelings could well increase, at least in some countries. [redacted]

It has been argued by some observers that stable or declining oil deliveries by the USSR to Eastern Europe will spell reduced East European "dependency" on the Soviets. Dependency, it is implied, is more or less proportionate to the volume of oil deliveries. In fact, the only condition under which dependency might be significantly reduced would be a Soviet requirement that most or all of its oil be paid for in hard currency. While there is some evidence from negotiations with the Poles that the Soviets might be contemplating such a drastic step, there is little chance that they would do so now for all East European countries. [redacted]

Otherwise, even if the USSR were to supply only 50 percent of Eastern Europe's oil, its contribution would still be irreplaceable. Moreover, new bonds of energy dependency are already being forged. With the completion of the Orenburg pipeline project, Eastern Europe is even more dependent on the USSR for natural gas than it had been before, and this dependency will probably increase in the future as gas deliveries are stepped up. With the completion of the Vinnitsa-Albertirsa high-voltage transmission line and

the projected construction by the mid-1980s of the two nuclear power plants in the Ukraine linked to East-Central Europe and the Balkans, the electric power dependency of Eastern Europe on the USSR will be substantially increased. In addition, the CEMA nuclear power program—which involves Soviet equipment, construction assistance, fuel supply, and waste disposal—will build even more dependency into the East European-Soviet energy relationship. [redacted]

In a more general sense, despite countercurrents and resistance in both Eastern Europe and the USSR, Bloc economic integration has in fact gradually increased in recent years. Given the bleak prospects for Eastern Europe being able to replace imports of energy and raw materials from the USSR with imports from other suppliers, or substantially to expand exports of manufactured goods to the Western market, it is probable that the trend toward integration will continue in the 1980s. The further tilt toward the Soviet Union in the East European economies, if sustained, will represent a major political achievement for the Soviet leadership. [redacted]

Actually, "dependency" of Eastern Europe on the USSR is not the issue at all. The real question is, what sort of leverage will continuing strong East European dependency give to the Soviets? The answer depends fundamentally not upon what if anything the East Europeans choose to do, but upon how the Soviets calculate their own economic and political losses or gains in squeezing Eastern Europe, upon how they size up the likelihood of political instability in this region, and upon what measures they choose to employ in responding to potential or actual instability. [redacted]

The Possibility of an Energy-Induced Economic/Political Crisis in Eastern Europe. [redacted]

[redacted] In other words, there appears to be a clear trade-off between Soviet growth and East European oil deliveries. [redacted]

To complicate the picture, [redacted] while a cutback in the growth of Soviet oil deliveries to Eastern Europe, or an absolute reduction, does significantly affect GNP in these countries, the magnitude of the impact is likely to vary quite substantially from one country to another, depending on the extent to which a country can count on its own indigenous fuel resources. Thus, economic growth in Poland, the East European country with perhaps the greatest potential for political instability, would probably be least affected by a Soviet oil cutback, while growth in Hungary, one of the more stable countries politically, would be more severely affected. [redacted]

As we have seen above, the USSR has made what it regards as major concessions to the interests of its East European clients in the area of energy supply. It has delivered large and rising volumes of oil to Eastern Europe throughout the 1970s, plus gas, electricity, and coking coal, at returns well below what these deliveries could have earned in hard currency on the world market. It has also committed itself to increase total energy deliveries somewhat in the 1981-85 five-year plan period, and to contribute to an expensive CEMA nuclear power development program. In addition, it has compensated to some extent for its fuel price hikes since 1975 by allowing East European countries to run balance-of-payments deficits with it. But there are limits to Soviet beneficence. There has been little "give" so far in Soviet negotiations over oil delivery increases, oil prices, or credits for the 1981-85 period. Moreover, the CEMA Target Program for energy, which embodies Soviet strategy, is predicated on the assumption that as far as collective action is concerned, the East Europeans hereafter must bear the primary responsibility for solving their own energy problems. [redacted]

From this pattern of responses to the problems of East European energy supply one can draw some speculative inferences about the limits of Soviet responsiveness to political blackmail by East European leaders. Obviously, Moscow is concerned about the possibility of political instability in Eastern Europe (especially Poland), and is prepared at least to listen to the argument that failure by the USSR to satisfy fuel demand in one or another country could precipitate a crisis. [redacted]

Soviet leaders have heard this argument in the past, however, and are probably disposed to interpret it in the first instance as a sign of unwillingness of allies to shoulder their fair share of the burden. Nor does it necessarily follow that the Soviet leaders will be prepared to make concessions on fuel deliveries even if they are convinced there is a threat of instability. There are limits to disposable Soviet fuel reserves. But, even more important, Soviet leaders are as likely to demand that East European regimes strengthen "discipline" and undertake political countermeasures aimed at repressing impending instability, as they are to attempt to defuse it through providing more fuel or credits. [redacted]

Under the conditions that are likely to exist in the first half of the 1980s, Soviet policymakers will probably regard the use of military force to suppress disturbances in Eastern Europe as undesirable, and they will be concerned that intervention in Eastern Europe could provoke unrest in the Soviet ethnic borderlands—especially the Baltic region and the Ukraine. But Soviet policymakers will not pay an unlimited price to guard against having to use military force. The lesson they are likely to have drawn from Hungary in 1956 and Czechoslovakia in 1968 is that armed repression plus followup "fraternal assistance" does in fact work, even if it brings with it temporary economic and foreign policy costs. [redacted]

One effect of the changed international environment in the wake of the invasion of Afghanistan will probably be even more Soviet pressure on Eastern Europe. The Soviet move into Afghanistan is likely to intensify economic strains within the USSR, and generate demands for greater Bloc solidarity. The East European regimes will probably be asked once again to make greater contributions to Warsaw Pact defenses and to foreign aid recipients favored by the Soviets. In response to Western retaliatory measures and in order to counter attempts to divide Eastern Europe from the Soviet Union over the Afghanistan issue, the Soviets have already begun to clamp down—at least temporarily—on East European ties with the West. Internally, Afghanistan may strengthen the more conservative elements within the East European Communist parties, thus obstructing the possibility of enactment of

serious economic reforms, even though loss of Western credits would create pressures for effective domestic solutions to economic problems. [redacted]

On balance, the coming succession period in the USSR could accentuate the danger of an energy-induced economic/political crisis in one or more of the East European states. It is possible that if jockeying in the succession sweepstakes continues for some time, as occurred in 1953-57, contenders for the post of General Secretary might engage in "bidding" for East European support, holding out the possibility of concessions on fuel deliveries. More likely, however, would be bidding by contenders for support from internal Soviet constituencies that will also want more energy. And there will be no authoritative Soviet "statesman" like Brezhnev capable of personally decreeing Soviet largesse for an East European regime in dire distress. [redacted]

If the decision to invade Afghanistan provides any insight into the cast of mind of the post-Brezhnev leadership (and it may not), it would suggest that taking care of East European economic difficulties could easily take a back seat to the pursuit of broader Soviet military-political strategic aims. As we have already observed, the strategy behind Soviet energy policy toward Eastern Europe has been highly consistent in the 1970s because the USSR's interests have been clearly identifiable and enduring. These interests will remain the same in the succession period, and there is no reason for any radical shift in Soviet policy. However, it is entirely possible that the succession may produce vacillation or indecision in the implementation of this policy, which could encourage factionalism and political conflict within East European leadership groups. Such conflict has usually existed when political instability has occurred in the Bloc countries. [redacted]

The most likely way in which Soviet energy-related behavior could help to precipitate a crisis in Eastern Europe, though, is probably through miscalculation. The biggest miscalculation could well be a Soviet overestimation of the USSR's own oil production in the first half of the 1980s. If our projection is correct, Soviet oil production will peak at about 11.9 million b/d in 1980 and decline to between 10 and 8 million b/d by 1985. But the Soviet leadership may not think the prospects are this dismal. [redacted]

Soviet specialists probably accept the notion that oil production will peak in the next year or two. However, they are probably uncertain how long peak production can be maintained before beginning to decline; and they may be reluctant to jeopardize their careers by telling the political leadership that production will decline as soon or as steeply as the CIA forecasts. They know, of course, that Gosplan chairman Nikolay Baybakov, considered by the political leadership to be an expert on the oil industry (which he managed for many years), has publicly championed the view that vast stocks of oil can still be extracted from older Soviet fields through an extensive program of tertiary recovery. (This is a hope that most Western experts on enhanced recovery consider highly unrealistic.) In addition, they may not even have a very good estimate of actual Soviet oil reserves. A Soviet specialist, [redacted]

[redacted] in September 1979 what Soviet oil reserves were: "If you want to know the truth, we have not the faintest damned idea anymore." The reason offered by [redacted] to explain this situation was faulty techniques of calculating reserves. [redacted]

The top Soviet leadership may be led to believe—or to demand regardless of the facts—that oil production can be held steady or even increased during 1981-85 through continued crash development of Tyumen Oblast, the acceleration of enhanced recovery in depleted fields, and exploitation of fields still to be discovered in Eastern Siberia and offshore. The Soviet Minister of Oil, Mikolay Mal'tsev, complained [redacted] in [redacted] 1979 that he was very depressed over the future of the Soviet oil industry, and that without major purchases of US equipment and technology the USSR would not come close to meeting its projected production goals. [redacted]

Yet, Mal'tsev was being overridden by his own political bosses with respect to purchases of US equipment, and at the same time pressured to increase production. A weapon being used against him was a 1978 analysis by a Swedish firm, Petrostudies, that claimed the USSR had far greater reserves than the Ministry itself had reported to the leadership and that the USSR could double its crude oil output by 1990. Mal'tsev is said to have stated that he would not be surprised if the KGB

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itself had produced the Petrostudies analysis just to embarrass him. [redacted]

The Soviet commitment to keep oil deliveries to Eastern Europe at least stable at the 1980 level for the period 1981-85—upon which East European production and foreign trade plans for 1981-85 will be based—may well be predicated upon the assumption that Soviet oil production can also be stabilized or even slightly increased over this period. [redacted]

[redacted] when the Soviet Union and the other CEMA countries together become net importers of oil (which could be as early as 1982 or 1983), the rise in oil imports will be precipitous, so that average annual Bloc oil import requirements are likely to be high from the very onset of the oil deficit. A critical situation in supplying Eastern Europe with oil could thus arise without much advance warning, much less advance planning. [redacted]

A second possible Soviet miscalculation lies in the entire set of contingencies associated with implementation of the CEMA energy Target Program. These contingencies are integrally related to declining Soviet oil production by virtue of the leadtimes required for various Target Program measures to take effect. The Soviets have insisted that a great deal of energy conservation is possible in Eastern Europe. Yet, while the potential for conservation indeed does exist, it lies primarily in the production sphere, where progress will be costly and time consuming. Obsolete machinery must be replaced, requiring Western imports, greater hard currency debt, and exports to the West; microefficiency improvements in energy utilization depend ultimately upon price changes and economic reform; and large immediate energy savings are likely to be achieved only at the expense of reductions in volume of output. [redacted]

The Soviet position that Eastern Europe can do more for itself in the short term rests heavily on the assumption that the steady decline in the role played by indigenous coal in the East European energy balance can be rapidly reversed. The economic, environmental, and social costs of bringing off such a turnaround, however, may have been grossly underestimated by the Soviets. The coal-mining sectors in East

European economies are already laboring under tremendous strain, and the possible eruption of discontent on the part of miners should not be discounted: this happened in the Jiu Valley of Romania in 1977, and it could happen in Poland, Czechoslovakia, or East Germany. East European planners are being compelled to set high future targets for coal production, but industry officials are skeptical they can be met. A senior Polish energy official commented privately in 1978, for example, that in his opinion production of brown coal would reach at most 200 million tons, rather than the planned 250 million tons or contemplated 300 million tons. [redacted]

The longer term success of the Target Program depends in large part upon the speed with which nuclear power plants can be commissioned. CEMA energy balance calculations anticipate that the 37,000 megawatts of nuclear power capacity projected to be installed by 1990 in the CEMA countries (including the Khmel'nitskiy and Konstantinovka plants in the USSR) will release 70 million tons of standard fuel. But there is little likelihood of schedules being met for the commissioning of nuclear power plants. [redacted]

Whatever the longer term prospects, Eastern Europe in the meantime will have to attempt to acquire more oil from OPEC suppliers. The Soviets, however, may have miscalculated the hard currency earning capacity of East European countries in trade with the West, and the objective possibilities of East European countries increasing exports simultaneously to the West and the USSR. It is likely that they have also overestimated the possibilities for CEMA of gaining privileged access to OPEC oil through arms trade and development assistance, while underestimating the rapidity of OPEC price rises. [redacted]

A third possible miscalculation lies in the Soviet reading of energy-induced political developments in Eastern Europe. There is probably a predisposition among Soviet policymakers to resent East European appeals for assistance, because of perceived higher standards of living in Eastern Europe and the heavy opportunity costs to the USSR of providing such assistance in fuel supply and hard currency credits. This attitude could lead Soviet policymakers to misjudge the tolerance of East European populations for

reductions in living standards. It is unclear, in this connection, how good Soviet intelligence on public moods in Eastern Europe actually is, and to what extent such intelligence in any event affects policy.

The Soviets could also misjudge the degree of effective control and managerial competence exercised by East European regimes in coping with their energy problems.



There are, of course, elements of flexibility in the situation confronting the Soviets and in possible responses to it. To some extent, the severity of the sense of deprivation induced in Eastern Europe by the impact of energy shortages will depend upon perceptions among East Europeans of what is happening to living standards in the West. If the comparison is not unfavorable, the deprivation felt will be moderated. The Soviets also have the option of permitting or encouraging East European governments to accept higher hard-currency debt service ratios; that is, allowing them to borrow more in the West. Ultimately, this borrowing would have to be paid for through greater exports to the West, but it could provide East European regimes with a temporary way out of tight situations—assuming lenders could be found. Such borrowing might conceivably be linked to an expansion of East/West energy ties, in which both West and East European countries have expressed interest, and which the Soviets have been attempting to promote through the mechanism of the Conference on Security and Cooperation in Europe (CSCE) and the longstanding appeal to convene a high-level East-West meeting on energy.

Eastern Europe could benefit in this context through Western participation in gas pipeline construction, the expansion and interconnecting of electric power grids, and acceleration of the CEMA nuclear power program. There is also the possibility that Poland might be able to reap substantial gains through exporting coal and/or electricity to the West—especially to West Germany, with which it is already engaged in discussions along these lines. Finally, the Soviets always have the option of sacrificing their own domestic needs, at least temporarily, to supply an individual East European country in dire straits with more natural gas (which might depend on the expansion of pipeline capacity), oil, or credits with which to purchase oil on the world market.

Impact of Involvement in the East European Energy Problem on Soviet Behavior. The most immediate effect on the Soviets of having to cope with the East European energy problem will be a reduction of available energy in the USSR, with the negative impact this will have on economic growth, and a cutback in the most important hard currency-earning export item. Despite the Soviet attempt to shift more of the burden of energy supply onto the East Europeans, energy deliveries to Eastern Europe will weigh heavily on the USSR in the 1980s. The integration strategy, embodied in the CEMA energy Target Program, will to some extent increase the reciprocal dependence of the USSR on East European economic performance (for example, in the nuclear equipment field). It will also complicate and slow down an already overloaded central planning system, in the process reinforcing the dominance of directive methods in planning.

Externally, the strategy adopted by the Soviets to attempt to cope with the East European energy problem will tend to move the USSR in the direction of Bloc autarky, although selectively rather than in a comprehensive manner. As noted above, this strategy does not exclude the possibility of large energy deals with Western Europe, if such deals could be negotiated on acceptable terms.

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The net Bloc oil deficit will substantially intensify the Soviet interest in Middle East developments. The Soviets and East European governments continue to seek commercial access to oil from Saudi Arabia and the other conservative Gulf states. Any hope that they have of large imports in the near term, however, appears to depend upon Iran, Iraq, and Libya.

Given the underlying political differences between these states and the USSR, plus the difficulties CEMA states already began to encounter in 1979 in getting the oil they wanted from at least Iran and Iraq, the Soviets should be very uneasy about their long-term prospects with these countries and their leaders. The invasion of Afghanistan is not part of a strategy calculated to win friends in these countries; whether it wins influence remains to be seen. Barring a military occupation of the Iranian oilfields, the Soviets will be compelled by the Bloc's need for oil to seek a common language with the rulers of the three countries, unless more pliable leaders come to hand.

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~~Secret~~

MOSCOW, APRIL 1, REUTER -- THE SOVIET UNION SAID TODAY ITS OIL OUTPUT DURING THE FIRST TWO MONTHS OF THIS YEAR EXCEEDED THE PLANNED LEVEL BY MORE THAN 75,000 BARRELS PER DAY (BPD).

SOV. Union -
General

THE ECONOMIC WEEKLY EKONOMICHESKAYA GAZETA SAID THAT SOVIET OIL FIELDS PRODUCED ABOUT 4.5 MILLION BARRELS MORE THAN THE TARGET FOR THE TWO MONTHS.

THE SOVIET UNION, THE WORLD'S BIGGEST OIL EXPORTER, HAS FIXED AN OVERALL 1981 OUTPUT TARGET OF 12.2 MILLION BPD.

EKONOMICHESKAYA GAZETA SAID TARGETS FOR THE FIRST TWO MONTHS HAD BEEN FULFILLED IN VIRTUALLY ALL AREAS WITH FIELDS IN WEST SIBERIA AMONG THOSE TO HAVE SHOWN BEST RESULTS.

ATTENTION HAS FOCUSED ON SOVIET OIL PRODUCTION SINCE A 1977 FORECAST BY THE U.S. CENTRAL INTELLIGENCE AGENCY (CIA) OF A DECLINE THAT WOULD MAKE THE SOVIET UNION A NET IMPORTER BY 1985.

REUTER 1106 JC

R44AR 1444470T70TC70

FBIS 88 (OUT OF SEQUENCE)*****

APF REPORTS PREM TROOPS MASSING AROUND BANGKOK

BK011643 HONG KONG APF IN ENGLISH 1638 GMT 1 APR 81

(EXCERPT) BANGKOK, 1 APR (APF)--TROOPS LOYAL TO PRIME MINISTER

PREM TINSULANONDA, TARGET OF A MILITARY COUP DURING THE NIGHT, WERE

TODAY MASSING AROUND THE THAI CAPITAL, UNCONFIRMED REPORTS SAID HERE.

UNITS FROM THE SECOND THAI ARMY LOYAL TO GEN PREM, OVERTHROWN BY A MILITARY REVOLUTIONARY COMMITTEE LED BY DEPUTY ARMY CHIEF SANT CHITPATINA, WERE ALSO HEADING FOR BANGKOK FROM THEIR BASE IN NORTHEASTERN THAILAND, WHERE GEN PREM WENT AFTER THE COUP, THE REPORTS SAID.

OBSERVERS BELIEVED THAT GEN SANT WAS HAVING INCREASING TROUBLE CONTROLLING THE SITUATION.

1 APR 1659Z JA/SAH*****

DECLASSIFIED

NLRRF06-114/7 #9776

BY KML NARA DATE 5/7/13

MEMORANDUM FOR:

Mr. Richard Pipes
Senior Staff Member
National Security Council

3
File

Attached is your personal copy of our
assessment, "Soviet Oil Prospects," ER 81-10200,
~~CONFIDENTIAL.~~



MAURICE C. ERNST
Director of Economic Research
Central Intelligence Agency

Date 29 MAY 1981

FORM 5-75 101 USE PREVIOUS EDITIONS

FOIA(b)(3)

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NLRR F06-114/7 #9769

BY KML NARA DATE 5/7/13



National
Foreign
Assessment
Center

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1578

Soviet
USSR

Soviet Oil Prospects

An Intelligence Assessment

DECLASSIFIED IN PART

NLRR E06-114/7 #9770

BY KML NARA DATE 5/7/13

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ER 81-10200
May 1981

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**National Security
Information**

**Unauthorized Disclosure
Subject to Criminal Sanctions**

FOIA(b) (3)

A microfiche copy of this document is available from OCR/DSB (351-7177); printed copies from OCO/IDCD (351-5203). Regular receipt of NFAC reports in either microfiche or printed form can also be arranged through OCO/IDCD.

Derivative classification [redacted]
Review 20 years from date
Derived from multiple sources

All material on this page
is unclassified.



National
Foreign
Assessment
Center

~~Confidential~~

5

Soviet Oil Prospects

An Intelligence Assessment

*Information available as of 22 May 1981
has been used in the preparation of this report.*

This assessment was prepared by the
 Office of Economic
Research. Comments and queries are welcome and
should be directed to the Chief,

This paper has been coordinated with the Office of
Political Analysis.

~~Confidential~~
ER 81-10200
May 1981

Soviet Oil Prospects

Key Judgments

This report updates the CIA study of April 1977 on the Soviet oil industry.¹ That study concluded that Soviet oil production would peak, possibly as early as 1978, and certainly not later than the early 1980s. We further noted that the maximum output reached would probably be between 11 million and 12 million barrels per day (b/d) and would probably not be maintained for long. Finally, we concluded that by 1985 output would fall to between 8 million and 10 million b/d.

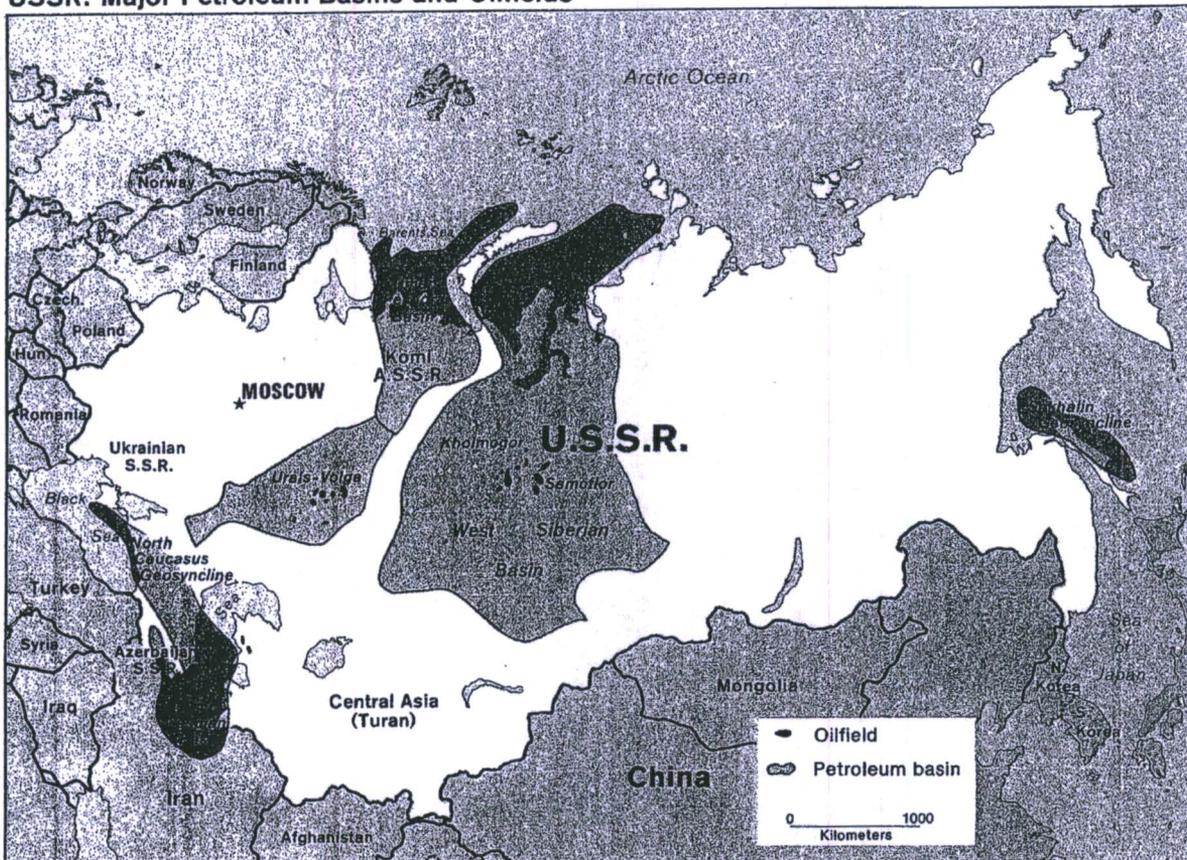
We are in the process of an intensive review and update of the 1977 estimate. All of the problems that we foresaw the Soviets facing are emerging, although output in the near term may be somewhat higher than we anticipated in 1977. This report summarizes the results of our research thus far. It has been prepared because of the critical nature of the Soviet oil problem for energy policy worldwide and because of its potential impact on Soviet policy and East-West relations.

The central finding is that, despite extremely costly efforts, Soviet output, at most, is likely to remain at about the present level of 12 million b/d for one to three years and then begin to decline. We estimate output in 1985 between 10 million and 11 million b/d, with a further decline to perhaps 7-9 million b/d in 1990. Only the rapid discovery of very large amounts of new oil can avert this outcome.

If oil production falls by the mid-1980s to the levels we expect, the Soviet Union will be unable to satisfy its own oil requirements and to maintain exports to its client states and the West. Moscow, therefore, will have to make painful choices in allocating scarce oil supplies between meeting its domestic needs and those of Eastern Europe and in maintaining enough hard currency exports to finance high-priority imports. The Communist countries as a group are already fast losing their net export position and probably will be net importers by 1985.

¹ The conclusions of that study were highly controversial at the time. Since then, however, more and more specialists on Soviet energy have come to share our view. The views set forth here are still not universally subscribed to either within the government or among outside companies and observers. DIA, for example, takes a more optimistic view of Soviet oil prospects.

USSR: Major Petroleum Basins and Oilfields



629713 5-81

Soviet Oil Prospects

The Soviet Oil Problem

The Soviet oil industry is in serious trouble. There are two principal roots of the problem:

- To minimize investment while maximizing output, the Soviets have overexploited their largest and best deposits. Their production strategy leads to rapid reserve exhaustion and sharp declines in output once production peaks in any individual field.
- The strategy worked well for the Soviets as long as they were finding enough large fields to replace those in decline. No such fields have been found in the past six years.

The problem caught the Soviets off guard. They had anticipated more discoveries and had substantially overestimated the amount of oil they would recover at existing fields.

The Soviets have attempted to compensate for these problems and to keep production rising by greatly increasing investment in recovery and drilling. They are installing pumps and other artificial lift equipment on a vastly increased scale, while at the same time attempting to drill and develop large numbers of smaller, less productive fields. This effort has sharply pushed up the share of the oil industry and supporting infrastructure in total national investment. Moreover, costs will mount rapidly in the next few years because the decline of production in older fields is accelerating and average production from new wells in smaller deposits is low.

In short, the Soviet oil industry is on an accelerating treadmill. Production now totals 12 million barrels per day (b/d), the largest in the world. Simply maintaining this level of production, however, requires development of 2 million b/d in new capacity each year. In the past, large new capacity requirements were relatively easy to meet by drilling a few wells in highly productive fields. Now, drilling requirements are massive because of the deteriorating quality of known reserves. In the mid-1970s, for example, the Soviets added new capac-

ity of 1 million b/d per year in West Siberia (by drilling about 1,000 new production wells that produced 1,000 b/d each) to raise national production 600,000 b/d. In 1981 they plan to add new capacity of 1.5 million b/d per year in West Siberia (by drilling about 3,000 new wells that produce 500 b/d each) to raise national production less than 200,000 b/d.

Record to Date

From World War II until 1977, the Soviet record in oil production was enviable. Production goals were consistently met or exceeded at small additional cost. Annual production gains have slowed sharply in the last few years, from about 600,000 b/d in 1975 to only about 300,000 b/d in 1979. The original 1976-80 economic plan called for production of 12.4-12.8 million b/d in 1980. Actual output in 1980 was about 12 million b/d, a gain of only 300,000 b/d over the previous year. The plan for 1981 calls for production to increase by only one-half of the 1980 increment.

Production is now stagnating or declining in all major Soviet oil-producing regions except Komi and West Siberia. Urals-Volga production, for example, has declined by 700,000 b/d since output peaked in 1975, dropping to 3.8 million b/d in 1980. The decline reflects the near collapse of output in the region's largest producing field. Production in other traditional producing areas—North Caucasus, the Ukraine, Central Asia, and Azerbaijan—is also declining. Altogether, oil production in these areas, plus the Urals-Volga has slipped by about 1 million b/d since 1975. In 1980 the decline was about 300,000 b/d. Moscow had not anticipated this decline; the initial 1976-80 plan called for output from these areas to remain about constant through 1980.

Almost all of the growth in Soviet oil production during the last decade has come from West Siberia. In 1980, West Siberian production reached about 6.2 million b/d, up from 0.6 million b/d in 1970 and 3 million in 1975. About half of the total comes from the supergiant Samotlor field. Because of its high-quality

USA

reserves, the USSR was able to achieve large production gains from Samotlor with relatively small numbers of drillers and other oilfield workers. To help compensate for production shortfalls elsewhere, the Soviets have worked Samotlor harder than any major field in the world. As a result, the field is about to decline after only a few years near peak output. Most of the other 17 large West Siberian fields that account for the remainder of the region's output have already peaked or are in decline, according to Soviet industry experts.

The 1981-85 Plan

The recently published 1981-85 Five-Year Plan calls for only small increases in total oil production. Output is planned to rise an average of 50,000 b/d to 150,000 b/d annually, reaching 12.4-12.9 million b/d in 1985. Even the low end of the range depends on West Siberia, where output is targeted to increase by almost 1.5 million b/d, reaching nearly 8 million b/d by 1985. The Soviets expect output in traditional producing areas to decline roughly 1 million b/d by 1985.

The Reserve Problem

To achieve even the low end of the planned range for 1985, the Soviets must find new, high-quality reserves soon. Since Moscow keeps reserve data secret, estimates of reserves must be made on the basis of incomplete and indirect evidence. Moreover, the Soviet reserve classification system is completely different from Western concepts, complicating comparisons. Beyond this, differences frequently exist in what is being measured—oil in place versus recoverable reserves, for example. Differences like this help explain why some estimates place reserves at 80 billion barrels or more while others are 30 billion barrels or less.

We estimate that the volume of remaining recoverable reserves—proved, probable, and possible—at discovered fields approximate 50 billion barrels. This is based on an intensive review of Soviet technical literature, which contains large amounts of scattered data on discovery rates, individual field reserves, as well as statements regarding the quality of reserves. We estimate that developed reserves in existing producing areas total about 30 billion barrels. Since this figure includes some viscous oil and reserves with low flow rates, the stock of high-quality reserves that can be

produced at a fairly high rate is substantially below 30 billion barrels.

This reserve base is insufficient to sustain Soviet output at present levels for very long. With annual production approximating 4.4 billion barrels the reserve-to-production ratio is already declining sharply. The ratio of total discovered reserves to production has dropped to about 11:1. In the case of drilled reserves in existing producing areas, the ratio is now around 7:1, not much better than in the United States, excluding Alaska. Moreover, the ratio is declining in West Siberia, as well as in traditional producing areas, because of a sharp decline in discovery rates.

Falling Discovery Rates

The odds on finding major new deposits that could be brought into production quickly appear to be shrinking. In the USSR, as elsewhere in the world, giant fields account for most of reserves and output. In the older producing areas of the Soviet Union, however, only five giant fields have been found in the last 20 years. And in the newer region, West Siberia, no giant field has been located since the Kholmogor field was found in 1973. A key indication of the erosion in the quality of West Siberian reserves is the projected decline in well productivity—the volume of oil that each new well can produce—over the next five years. According to Soviet specialists, well productivity will decline by 60 percent during 1981-85 compared with the previous five-year period.

The failure to discover any giant fields in West Siberia since 1973 has substantially lowered the rate of finding reserves. This rate fell from about 8,000 barrels per exploratory foot drilled in the early 1960s to about 1,000 in the period 1966-75 and about 200 in the last five years. As a result, Soviet specialists are increasingly concerned about the lack of good discoveries and falling reserves in West Siberia. Because of the sharp increase in production in recent years and the fall in discovery rates, the reserve-to-production ratio in West Siberia may be declining faster than in any other producing area.

We cannot rule out the possibility of finding large new fields in West Siberia. Otherwise, particularly promising locations are offshore extensions of onshore producing areas in the Caspian, Barents, and Kara Seas. Of these, only discoveries in the deep waters of the Caspian are likely to be brought on stream before 1990. Offshore exploration is under way at Sakhalin, but significant production is not likely. Development in other areas will entail long leadtimes. The Arctic, for example, is only lightly explored. Although Arctic onshore and offshore potential is considerable, exploration and development will require technology that is not now available either in the USSR or in the West. As things now stand, seismic limitations hinder Soviet exploration in permafrost regions, below salt layers, and generally at depths below 3,000 meters.

Drilling Requirements

To meet 1985 oil production targets, the Soviet oil industry will have to add more than 10 million b/d of productive capacity to offset the depletion of fields in older producing areas as well as West Siberia. With no stock of high-quality reserves awaiting development, drilling will have to increase much faster than in the past just to maintain output. Soviet planners recognize the problem, and current plans call for total drilling to more than double in five years, reaching 35 million meters in 1985. Most of the increase is planned for West Siberia, where development drilling is scheduled to about triple the present effort, to 20 million meters annually. Plans call for this drilling during 1981-85 to be 75 million meters, versus only 28 million meters in the previous five-year period. These drilling targets probably will not be achieved.

In addition to vastly increasing the drilling effort, the Soviets simultaneously will have to put large numbers of personnel in place to service old wells, pumps, and other artificial lift equipment. Siberian working conditions are difficult, mainly because of the climate but also because shipping requirements for equipment, well casing, personnel, housing, and food overload the transportation system. Poorly sorted and loosely consolidated sediments add to the problems; drilling is more difficult, and submersible pumps wear out in a few months.

The Soviets are now in the process of shifting drilling resources from traditional producing areas to West Siberia because new well productivity—although falling sharply—is still higher than in the older producing areas. The shift probably will result in steeper production declines in the Urals-Volga area and elsewhere than the Soviets now expect unless they are able to train new crews and build rigs rapidly enough to maintain drilling in the old areas. In 1979, they were unable to replace shifted rigs and crews, and we doubt they will be able to do so in the future because of the concentration of their efforts on West Siberia.

While the Soviets recognize the need for massive drilling, the scope of the problem has caught them by surprise. For one thing, they did not expect the finding rate for giant fields to drop as suddenly as it did. In addition, during the 1970s, Soviet oil experts had to revise downward their estimates of the percentage of the original oil in the ground that could be extracted with current techniques by about 1 percent per year since 1970. These unforeseen revisions equate to a write-off of estimates of high-quality reserves on the order of 25-35 billion barrels—the equivalent of six to eight years of output at current rates. Before these downward revisions began in the late 1960s, the Soviets were counting on a recovery rate of more than 50 percent nationwide, compared with only 32 percent for the United States.

Production Outlook

We doubt that the Soviets can meet their production goals because of the lack of high-quality reserves and the difficulty they will have in achieving their drilling targets. To meet these goals would require more reserves than we think they have, or more discoveries than we think they will make. We expect Soviet oil output to remain at about present levels for one to three years and then begin to decline. By 1985, output will probably be between 10 million and 11 million b/d, declining to 7-9 million b/d in 1990. Oil output could remain at about 12 million b/d through 1985 only if the Soviets quickly find large, easily producible deposits in accessible areas. The odds on this happening are poor.

The projected ranges for Soviet oil production are based on optimistic and pessimistic assumptions on the size of the reserve base, the rate of discovery of new reserves, the decline in the productive capacity of existing fields, and the rate of growth of development drilling. The principal uncertainties involve factors affecting production in West Siberia. With respect to the rest of the country, we are only slightly more pessimistic than the Soviets themselves.

Although the Soviets are planning output levels 1-2 million b/d above those we believe likely in 1985, there is little doubt that the Soviet Government understands it has a serious oil problem. There are many indications that senior planners and party officials are alarmed about the shrinking reserve base, the growing production problems, and the massive increase in the cost of developing oil and gas, which is already cutting severely into other investment programs. The Soviet Government is making a big effort to develop and find oil, is hoping for the best, and is trusting to luck. This strategy makes good political sense, given the likely brief remaining duration of the Brezhnev leadership. Unless the Soviets are very lucky indeed, their strategy will sooner or later make the oil problem worse. As they produce their reserves faster in the next few years, the subsequent decline in output will be greater.

Policy Implications

If Soviet oil production soon begins to decline as we expect, Moscow will have to make difficult decisions on how to meet its domestic needs and those of Eastern Europe without turning from a net exporter to the West to a net oil importer. We do not expect the USSR to be a net oil importer by 1985 in part because its economic growth will be slow. The Communist countries as a group, however, are already losing their net export position and probably will be net importers by 1985.

The Soviets will attempt to deal with slower growth in total energy production by substituting other energy sources for oil and by cutting energy use through conservation. With coal production stagnating and nu-

clear power still a small but growing energy source, Moscow must depend on increased natural gas production to substitute for oil and to cover increases in energy consumption. Most of the increase in gas output through the mid-1980s will slow—but not halt—growth in domestic oil needs because gas will be used in new plants and equipment that otherwise would have consumed oil. Achieving a large absolute reduction in oil requirements through conversion of existing capital stock to gas will not occur until an extensive, costly network of gas distribution pipelines is constructed.

Energy conservation, moreover, will be very difficult. Most energy is consumed in heavy industry; households use little energy, and energy use in transportation is already quite efficient. The USSR has had a high-priority energy conservation policy for the last three years that relies mainly on central directives and exhortations, but energy consumption has continued to increase more rapidly than economic activity. Unless substantial reforms are made in management systems and overall basic priorities, energy supply will probably constrain Soviet economic growth during the 1980s.

During the next few years, Moscow can cushion the effect by cutting its oil exports to the West. Eventually, the Soviets will have to maintain a balance between the need to export energy to pay for high-priority imports and the direct requirements for energy in their domestic economy. Alternatively, Moscow could cut exports to Eastern Europe, but only at the risk of worsening a highly unstable situation.

The West can probably do little to prevent a substantial decline in Soviet oil production in the 1980s. Use of such Western equipment as pumps, drill bits, and gas lift equipment could help to moderate the decline somewhat. In the longer term, large-scale access to the best Western technology and advice could be of great help to the Soviets in exploring for and developing offshore fields, deep deposits, and fields in remote areas.



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MEMORANDUM

System II
90921

NATIONAL SECURITY COUNCIL

August 30, 1984

~~SECRET~~

ACTION

MEMORANDUM FOR ROBERT C. McFARLANE

FROM: ROGER W. ROBINSON
WILLIAM F. MARTIN

SUBJECT: CIA Tasker on Soviet Energy Development and Its
Strategic Implications for East-West Relations

DECLASSIFIED IN PART

NLRR F06-114/7 #9772

BY KML NARA DATES 5/7/13

In response to my memo of July 21, you approved our going forward with a tasker to the CIA to prepare a comprehensive update assessment on aggregate Soviet energy development and its strategic implications for East-West relations. We have had extensive discussions with [redacted] the Agency concerning how best to structure the TOR for this update assessment and have incorporated a number of their suggestions into the attached tasking memo from you to Director Casey (Tab I).

FOIA(b)(3)

This is a very important and timely undertaking as we now have evidence that the Austrians, for example, have been recently threatened by the Soviets with a doubling of their gas prices (approximately 90% dependent on Soviet gas supplies) if they continue to "give in" to the U.S. and COCOM concerning restrictions on strategic technologies. (See cables at Tab II).

It is also essential that we update our assessment of the Soviet energy strategy and the role of sophisticated (and in several cases dual-use) U.S. and Western oil and gas equipment in achieving the USSR's production, export and hard currency earning objectives. In this connection, we strongly oppose any discussions with the USSR on the issue of U.S. oil and gas equipment sales until a comprehensive assessment is completed and policy recommendations/alternatives are considered through the interagency process.

As you may know, the Soviets intend to raise the issue of export controls on energy equipment on a priority basis at the upcoming US-USSR economic working group meetings in Moscow tentatively scheduled for November (attached cable). We have strong indications that Commerce is planning to accede to the Soviet request which we believe runs counter to a number of important U.S. policy objectives (see page from 7/21 memo at Tab III). In addition, we will also urge that Commerce not publish a planned brochure related to this topic until the agencies have an opportunity to reflect on the CIA's findings.

RECOMMENDATION:

That you sign the attached memo to William Casey (Tab I) tasking the CIA to prepare a comprehensive update assessment on

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aggregate Soviet energy development and its strategic implications for East-West relations.

Approve _____

Disapprove _____

Don Fortier, ^{for} Dave Wigg, Ken de Graffenreid, ^{not available} Diane Dornan and Jack Matlock concur.

Attachments

- Tab I Memo to Director Casey
- Tab II Cables
- Tab III Page for July 21 Memo

THE WHITE HOUSE
WASHINGTON

DECLASSIFIED

NLRR F06-114/7 #9773

BY KML NARA DATE 5/7/13

~~SECRET~~

MEMORANDUM FOR THE HONORABLE WILLIAM J. CASEY
The Director of Central Intelligence

SUBJECT: Soviet Energy Development and Its Strategic
Implications for East-West Relations (S)

Background

The Soviet Ministry of Foreign Affairs has voiced its intention to discuss U.S. export controls on energy equipment during the U.S.-Soviet economic working group meetings to be held under the Long-Term Agreement to Facilitate Economic, Industrial and Technical cooperation tentatively scheduled for November 1984 in Moscow. Because of the importance of this issue in the context of our overall U.S. foreign policy objectives, I believe it would be imprudent for the Administration to undertake any such discussions without an up-to-date assessment of Soviet energy policy goals and the role of Western equipment and technology in achieving these goals. Past work by the Agency on Soviet energy developments and their implications for East-West relations has contributed significantly toward the advancement of U.S. policy formulation. For this reason, I am requesting that you revisit this issue so we may be prepared to consider whether or not any adjustments to our present policies in this area may be required. (S)

Nature of the Problem

Over the past few years, we have seen several disturbing instances where the Soviets have sought to gain important political and economic leverage over the West through the use of energy exports. The Soviets are: (U)

- o Using energy sales to the West as the centerpiece of their hard currency earnings structure. Today oil and gas sales account for about 66% of total annual Soviet hard currency earnings. (U)
- o Seeking an increasingly dominant share of European gas markets through predatory pricing practices. The Soviets probably hope to capture as much as 50-60% of Europe's total gas demand over the next two decades, resulting in additional crucial hard currency earnings of as much as \$10 billion or more. (Rough estimates based on a fully subscribed first strand of pipeline, use of other existing pipeline capacity and a fully subscribed new second strand of the Siberian pipeline). (U)

~~SECRET~~

DECLASSIFY ON: OADR

- o Seeking to expand their development of oil and gas resources off of Sakhalin Island jointly with the Japanese (SODECO) possibly at the expense of future U.S. LNG sales to Japan. We also have reports that they will also be selling up to 5 million tons of metallurgical coal to Japan with initial shipments beginning this year. (U)
- o Legally and illegally acquiring sophisticated Western oil and gas equipment, some of which is militarily useful, by leveraging future Soviet orders for energy-related equipment. (C)
- o Using the lure of energy equipment sales to also obtain preferential terms on credits. Much of Western sales of equipment for the Siberian pipeline project were financed with subsidized loans. (U)
- o Using pricing policy on gas sales to the West and the threat of cancellation of contracts to extort greater cooperation on the part of at least one West European government to cooperate in resisting U.S. and/or COCOM controls on strategic technologies. For example, a recent report reveals that the Soviets have told the Austrians that if they continue to cooperate with the West in restricting sensitive technology, they will double the price of their gas exports (Austria is about 80-90% dependent on Soviet gas supplies for its total gas requirements) and arrange for the cancellation of two construction contracts for projects in Eastern Europe totalling eight billion schillings. (C)

The Soviets will continue to pursue expanded energy exports to the West as a central component of their long term economic and geopolitical gameplan. In most instances, the Soviets will have the economic/commercial advantage and the ability to undercut alternatives through predatory pricing practices and the prospect of increased Western equipment sales and employment. The U.S., therefore, must continue to counter this Soviet policy with an on-going strategy building upon the President's major achievements in East-West economic relations over the past two and a half years. U.S. initiatives should continue to focus on: (U)

- o Encouraging viable alternatives to Soviet gas in West European markets even if a "security premium" is embodied in higher prices. (U)
- o Limiting oil and gas equipment and technology transfers which give the Soviet's additional advantage/leverage in the development of their energy resources and increased sales to Western Europe and Japan. (C)
- o Monitoring the projected level of hard currency earnings derived from energy sales to the West and its impact on the Soviet ability to sustain its present global commitments. (C)
- o Assessing the degree to which Western sales of oil and gas equipment to the Soviets are best balanced against common Western security interests. (C)

- o Limiting Soviet efforts to expand energy sales in the Pacific Basin countries particularly Japan (Sakhalin project) at the potential expense of expanded U.S. LNG sales in the next decade. (C)
- o Monitoring Soviet energy assistance and export to Eastern Europe and other Soviet surrogates such as Nicaragua and the prospect of sustaining this level of assistance in the future. (C)
- o Analyzing the extent to which the Soviets would seek resources outside its borders (i.e. intervene in Iran), if the ability to exploit domestic reserves were, for any reason, sharply diminished. (S)

Suggested Terms of Reference

To better position the U.S. to curtail the Soviet strategy of using energy sales as a geo-political weapon, major hard currency earner and lever for the acquisition of sensitive and sophisticated Western equipment and technology, a major effort is required to update past assessments on: (C)

- o Soviet Energy Prospects: This aspect of the study should concentrate on the role of Western equipment and technology in the Soviet effort to develop its energy resource base. The impact of the denial of Western/U.S. equipment and technology should be assessed with particular reference to the approximately twenty-two items originally proposed to COCOM for multilateral controls. This section should also include a review of the equipment and technology most vital to Soviet development efforts, potential military applications of such items (i.e. single-crystal turbine blade technology), and the possibility of establishing controls on the export of such equipment in cooperation with our allies. In addition, the study should attempt to assess Soviet capabilities to develop indigenous manufacturing capacity in these critical areas and assess the impact on the efficiency of the use of Soviet equipment. (S)
- o Soviet Strategy to Maximize Energy Exports, Advance Soviet Geo-political Objectives and as a Hard Currency Earner: This aspect of the study should examine Moscow's strategy for export maximization. It should begin with an estimate of future Soviet hard currency requirements and the role of oil and gas exports in achieving these targets. The impact of Soviet barter arrangements with OPEC nations should be examined. Soviet tactics to enlarge energy exports to Europe and the Pacific Basin nations should also be reviewed. Finally, the role of Soviet energy exports in maintaining relations with client states should be assessed. (S)
- o Western Markets for Soviet Energy Sales: The energy outlook for Europe and the Pacific Basin should be examined, with an emphasis on likely efforts by the Soviets to further penetrate these markets. Potential alternatives to Soviet imports and

the costs of developing these resources should be reviewed. In addition, European and Pacific Basin country attitudes toward greater dependence on the Soviet Union should be covered in the study, as well as the potential for U.S. exports to compete with and replace Soviet energy exports. U.S. policy options to minimize Soviet sales to key U.S. allies should also be presented for consideration. (S)

- o European/Japanese Perceptions of Soviet Energy Trade: The true economic benefit to Europe and Japan should be assessed, particularly the effects on Western employment (particularly the FRG), utilization of underused heavy industrial capacity and the indirect subsidization of uncompetitive Western companies for political purposes. In addition, Soviet disinformation themes should be catalogued which are designed to persuade Europe that, for example, the Soviets do not urgently need energy trade with the West and that the rationale behind U.S. efforts to restrict dual use energy equipment and place limits on Soviet sales to the West is really only a device to secure a preferred position for U.S. energy equipment suppliers. (S)

The time horizon for the studies should be for the period of 1985-2000. (C)

During the coming year we will be having extensive consultations with our Allies, bilaterally and within such fora as the IEA, OECD, COCOM and NATO, and therefore timely submission of this comprehensive update would be helpful. The Agency has been very responsive to our need in this area in the past and we know that you do have an accumulation of material which could be used for this assessment. However, given the overall importance of this exercise and the long term nature of the problem, we do not wish to set an unreasonable deadline. (C)

I suggest that Roger Robinson, Bill Martin and David Wigg of my staff meet with members of OGI, SOVA, EURA to determine reasonable deadlines and to further discuss the nature of this study. (C)

FOR THE PRESIDENT:

NATIONAL SECURITY COUNCIL
SECRETARIAT

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~~C O N F I D E N T I A L~~ USUN NEW YORK 01819

EXDIS
E. O. 12356: DECL: OADR
TAGS: AU, UR
SUBJECT: SOVIET THREATS ON, AUSTRIAN TECHNOLOGY TRANSFERS.

1. ~~C O N F I D E N T I A L~~ - ENTIRE TEXT

2. AUSTRIAN CHARGE AT U.N. (STRICTLY PROTECT) HAS TOLD AMBASSADOR SCHIFTER THAT SOVIET UNION HAS WARNED AUSTRIA THAT IF IT GIVES IN TO US ON THE ISSUE OF TECHNOLOGY TRANSFERS, THE SOVIET UNION WILL A) DOUBLE THE PRICE IT NOW CHARGES FOR NATURAL GAS AND B) ARRANGE FOR THE CANCELLATION OF TWO CONSTRUCTION CONTRACTS GIVEN AUSTRIAN FIRMS FOR PROJECTS IN EASTERN EUROPE, TOTALING EIGHT BILLION SCHILLINGS.

3. THIS INFORMATION MAY ALREADY BE KNOWN. BUT IS HEREWITH PASSED ON IN CASE ADDRESSES ARE UNAWARE.
SORZANO
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NLRR FOI 714/7 #9775

BY CN NARADATE 7/7/08

OFFICE OF THE VICE PRESIDENT
WASHINGTON, D.C.

TO: JACK MATLOCK

Here is the joint drilling
package I called you about.
The Soviet position is in
the last item in the
package.

A call from you & Halbanty
telling him of the border
negotiations would be most
appreciated by the V.P.

Halbanty is in Room
512-514 of the Fair
Seasons Hotel 342-0444

Many thanks

Dan Fogg



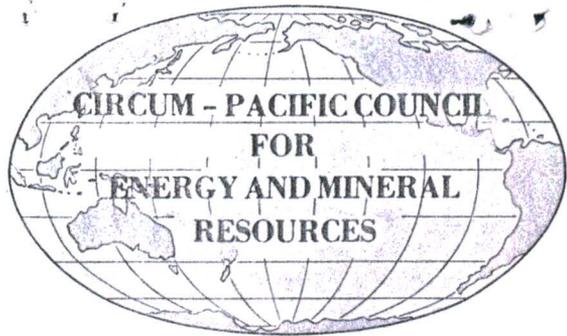
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Sam Slasman
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GEOLOGIST AND PETROLEUM ENGINEER
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CHIEF EXECUTIVE OFFICER

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January 14, 1985

MICHEL T. HALBOUTY
CHAIRMAN OF THE BOARD AND
CHIEF EXECUTIVE OFFICER

The Honorable George Bush
Vice President of the United States
The White House
Washington, D. C. 20500

Dear Mr. Vice President:

In connection with the possible U.S.-U.S.S.R. joint venture in the Navarin Basin, I am enclosing copies of documentation relative to the meeting I had with USSR Minister of Geology, Yevgeniy Kozlovsky, in Moscow on August 8, 1984, and subsequent correspondence.

I am surprised at the 180° change in attitude of the Soviets as opposed to the initial enthusiastic expression of the Minister. It is evident that the change was due primarily to the current US-Soviet negotiations on the delimitation of the sea as outlined in Minister Kozlovsky's letter to me.

The Minister, or his superiors, may have missed the point that this factor becomes unimportant in the Navarin Basin if an area is mutually selected which would be owned on a 50-50 basis, irrespective of where the boundary line is placed in the future.

I believe a high level U.S. attempt should be made to reinstate further discussions for a proposed venture of this nature, which may be successful in view of the initial enthusiasm shown for the project by Minister Kozlovsky.

It is my opinion that a joint drilling of a well in the Navarin Basin by the U.S. and the Soviets could establish better relations between the two governments and could fire the positive imagination of the world's people.

I would be happy to assist in any manner possible, if requested.

Sincerely,

Michel T. Halbouty

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CHRONOLOGICAL EVENTS PERTINENT TO THE
U.S.-U.S.S.R. JOINT VENTURE IN THE NAVARIN BASIN

- August 5, 1984 Delivered paper entitled "Basins of the World and New Frontiers" to the 27th International Geological Congress, Moscow, U.S.S.R
- August 8, 1984 Meeting with Minister of Geology, Yevgeniy Kozlovsky and Edouard Griaznov, his interpreter/assistant in the Soviet Center (Convention Center) in Moscow. Meeting lasted from 11 a.m. to 12:20 p.m.
- November 7, 1984 Made an appointment with Vice President George Bush for November 20 at 4 p.m. to give him a report on the above meeting.
- November 20, 1984 Meeting with Vice President George Bush at which time I fully informed him of the gist of the August 8 meeting.
- November 21, 1984 Talked with Griaznov on telephone and he said Minister would send me a letter. I asked about their telex number and was informed there were no telexes in Ministry; would have to go through Ministry of Foreign Trade or Foreign Affairs.
- November 21, 1984 Sent telex to N. A. Bogdanov with the request that it be delivered to Minister Kozlovsky.
- November 21, 1984 Reported to the Vice President my telephone conversation with Edouard Griaznov and read him the telex to N. A. Bogdanov. The Vice President requested that I keep him informed.
- November 23, 1984 Received telex from N. A. Bogdanov as follows: "Thanks your tlx 21.10.84 reply be sent as soon as possible."
- December 17, 1984 Talked with Vice President Bush and he inquired if I heard from "my man" and I told him no, but was writing a letter today. Sent a telex in lieu of the letter.
- December 17, 1984 Sent telex to Minister Kozlovsky via N. A. Bogdanov requesting him to deliver it to Minister Kozlovsky.
- December 20, 1984 Sent telex to N, A. Bogdanov inquiring if telex to Minister Kozlovsky had been delivered.

Michel T. Halbouty

December 25, 1984

Received telex from N. A. Bogdanov as follows: "I am in receipt your tlx and already passed it Mr. E. Kozlovsky."

December 27, 1984

Received telex from N. A. Bogdanov as follows: "Plese be adviised due Mr. Kozlovsky sending you his reply on your telexes as follows: "Dear Mr. Halbouty: Text of official answer on your proposal of combined US-Soviet drilling in Navarin Basin sent to Soviet Embassy in Washington. I requested Soviet Embassy to send this TLX your address. Briefly it runs as follows: during our meeting in Congress I informed you about situation in above drilling region. My authorities considered it not possible to carry out this kind invesitgations." Regards Kozlovsky, Sincerely yours, Bogdanov".

December 28, 1984

At 10:45, a Mr. Alexander Onya called and identified himself as being with the Soviet Embassy in Washington. He said he had a letter from the Minister and wanted to verify our correct mailing address as the letter was in Russian. I confirmed our office address and he said he would translate the letter and send it to Mr. Halbouty either today or tomorrow.

January 7, 1985

I called Onya and inquired about the letter inasmuch as it had not been received. He advised that it had been mailed either Thursday or Friday and should be here soon.

January 11, 1985

Letter received from Soviet Embassy in Washington - postmarked January 8, 1985.

Michel T. Halbouty

LIST OF ATTACHMENTS PERTINENT TO
U.S.-U.S.S.R. JOINT VENTURE IN THE NAVARIN BASIN

- Attachment 1 Excerpt of speech entitled "Basins of the World and New Frontiers" delivered to the 27th International Geological Congress in Moscow, U.S.S.R. on August 5, 1984
- Attachment 2 Memorandum dated August 15, 1984 re meeting with Minister of Geology Yevgeniy Kozlovsky
- Attachment 3 Memorandum dated November 21, 1984 re meeting with Vice President George Bush
- Attachment 4 Copy of telex dated November 21, 1984, sent to N. A. Bogdanov for delivery to Minister Kozlovsky
- Attachment 5 Copy of telex dated November 23, 1984, from N. A. Bogdanov
- Attachment 6 Copy of telex dated December 17, 1984, to Minister Kozlovsky via N. A. Bogdanov
- Attachment 7 Copy of telex dated December 20, 1984 to N. A. Bogdanov
- Attachment 8 Copy of telex dated December 25 from N. A. Bogdanov
- Attachment 9 Copy of telex dated December 27, 1984 from N. A. Bogdanov containing message from Minister Kozlovsky
- Attachment 10 Copy of letter dated January 4, 1985, (received January 11, 1985) from the Embassy of the U.S.S.R. with translation of letter from Minister Kozlovsky

"BASINS OF THE WORLD AND NEW FRONTIERS"

Michel T. Halbouty

Section of 27th International Geological Congress Plenary Session
paper delivered by Michel T. Halbouty on August 5, 1984, in
Moscow, USSR, regarding the Navarin Basin.

The basin areas in Alaska where there are future plans for exploration contain four of the most intriguing of the unexplored offshore areas of the world: the St. George, Norton, North Aleutian and the Navarin basin. All of these basins are offshore western Alaska.

The Navarin basin lies in the territorial waters of both the United States and the Soviet Union. The United States has recently offered certain portions of the basin for lease on its side of the territorial line and interest is rather high on the potential of this large basin. It will be interesting to follow the course of exploration in this highly petroleum potential area, and it may take the cooperation of both nations, the United States and the Soviet Union, to fully develop whatever petroleum resources are found by future drilling in the Navarin basin. Such a joint venture of these two nations would be not only interesting and historical but hopefully productive for both.

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MEMORANDUM TO THE FILE

August 15, 1984

RE: Meeting with Minister of Geology, Yevgeniy Kozlovsky, USSR
(U.S. - U.S.S.R. Joint Venture in the Navarin Basin)

As a result of the paper I presented to the Plenary Session of the International Geological Congress (attended by the top dignitaries of the USSR and 6,200 representatives and delegates from 106 countries of the world), in which I briefly discussed the Navarin Basin (excerpt attached), the Minister of Geology, Yevgeniy Kozlovsky requested an audience with me. I met with the Minister and his assistant/interpreter, Edouard A. Griaznow, on August 8.

At the meeting, after our pleasantries, the Navarin Basin was brought up. He complimented me on my paper and mentioned the location of the Navarin Basin being in both countries. He started the conversation by stating to me that he was very much interested in the comments I made in my paper and wanted to discuss future joint possibilities. He then asked me whether or not I thought our scientists could work together. I told the Minister that there is now an accord between us and had been for sometime and I saw no reason we could not continue to work together. He said he was aware of this, but asked if our scientists could work together on joint efforts established by both countries even though our countries' ideologies were so different. I replied that in science there are no ideologies: that scientists seek the truth and attempt to foster it and I saw no reason why scientists of all countries could not work together, including that of the U.S. and the Soviet Union. I reminded him that the scientists of our countries did work together on the space program.

He then asked, 'Then you think scientists in the U.S. would work with Soviet scientists in a joint venture in the Navarin Basin?' I told him that this was implied in my paper presentation. I said I was pleased he would bring it up and saw no reason why the U.S. and Soviet scientists could not work jointly in the Navarin Basin. The discussion then centered around how this could be done because he brought up the fact that there were some disputes as to the boundary separating the territorial waters of the two countries. I told him that an operations committee should be first formed between the two countries comprised of scientists and engineers who would select an area upon which a joint well would be drilled.

I also stated that the two countries would own that area 50-50 and regardless of how the boundary line was settled in the future, this selected area would still be owned 50-50 by each country. The exploratory well drilled on the selected block would be paid for 50-50 and all production and other wells drilled on that joint area would be owned on a 50-50 basis. In other words, ownership and costs on that selected area would be on a 50-50 basis.

Memorandum
August 15, 1984
Page 2

The Minister seemed to be very pleased with my optimistic answers and told me that instead of his writing a letter, which is the normal procedure for items of this kind, that he intended to go directly to see the Prime Minister immediately following conclusion of the International Geological Congress. He suggested that I "feel out" the "proper" people in the U.S. to determine any interest in such a joint venture. I told him I would not do this until after the election and I would then get in touch with him at that time and let him know what I was able to find out. He thanked me for coming to the meeting and appreciated my straight forward openness.

Since the Minister did not speak English (or if he did, he did not indicate so) and since Mr. Griaznov, his assistant, was the interpreter between us, I asked for the interpreter's telephone number because the Minister asked that I call when I had something to tell them.

In the course of the conversation, the Minister said that "they" know all about me as a geoscientist and engineer and also knew I was President Reagan's Chairman of the Advisory Task Force on Energy Policy, as well as Leader of the Transition Team on Energy. It is my opinion that he wanted to feel me out on this proposal, thinking that I would have the entree to the White House to discuss the matter further, if it became necessary.

Michel T. Halbouty

(The foregoing is the typed translation of MTH's original notes made immediately following the meeting the Minister Kozlovsky.)

MS

MEMORANDUM TO THE FILE

November 21, 1984

RE: Meeting with Vice President George Bush
U.S. - U.S.S.R. Joint Venture in the Navarin Basin

After the election, on November 7, an appointment was made with Vice President George Bush for November 20 at 4 p.m. I reviewed with him my meeting with the Minister of Geology, Yevgeniy Kozlovsky of the USSR, and his deputy, Edouard Griaznov.

I told the Vice President that as a citizen of the U.S., I felt that a joint effort of this kind - on the scientific level - would enhance the political relationship between the two governments. I emphasized that I felt very strongly that a joint effort of this nature would have the backing of the people of the U.S. and should have the backing of the people of the Soviet Union because each would realize that such a joint venture would establish better relations between the two governments and would be of extraordinary importance to show how we can work together.

The Vice President said, 'yes, this is true. We did have a joint space effort,' and I said, 'yes, but an announcement that a joint well will be drilled in the Navarin Basin would flame the imagination of the world's people.'

I told the Vice President that I have not heard further from Minister Kozlovsky and asked the V.P. what he suggested for me to do. He said since I had talked with the Minister, I should get in touch with him and find out if "they" are still of a similar mind and he suggested that I call Minister Kozlovsky, which I did.

I placed a call to Edouard Griaznov at 12:10 a.m. on November 21, from my home, and the call came through at 6:27 a.m. with the report that there was no answer. I requested the operator to call an hour later - the report was still no answer. I then gave the number of the Minister to the operator and found Edouard Griaznov there. I talked to him, but the connection was very bad, I could barely hear him and had to ask him to repeat himself several times, but from all of it, I gathered the Minister would write me a letter. He (Griaznov) said "he will write you a letter," and I repeated back to him "he will write me a letter?", and he said, "Yes, he will write you a letter."

I told Griaznov (I had to yell), 'I can't hear you - do you have a telex.?' He finally understood me and said there are no telexes in the Ministry of Geology; that all telexes would have to go through either the Minister of Foreign Trade or to the Minister of Foreign Affairs, which would then be relayed to the Minister of Geology.

Memorandum
November 21, 1984
Page 2

After considering sending a telex through one of the above Ministries, I elected to send the telex to Minister Kozlovsky through Dr. N. A. Bogdanov, a geoscientist with whom I have worked with before on other matters, and who is one of the key scientists in charge of exploration in that part of the Soviet Union, with the request that he deliver it personally to the Minister. (Bogdanov is with the Institute of the Lithosphere, Academy of Sciences of the USSR). A copy of the telex sent to Dr. Bogdanov is attached hereto.

I suggested to the Vice President that if he thought that such a joint operation between the U.S. and the U.S.S.R. was feasible to please discuss it with the President for his information.

Michel T. Halbouty

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YOUR CALL IS ON LINE
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HOUSTON, TEXAS
NOVEMBER 21, 1984

DR. N. A. BOGDANOV
INSTITUTE OF THE LITHOSPHERE
ACADEM OF SCIENCES OF THE USSR
MOSCOW

DEAR NIKITA:

REFERENCE THE JOINT DRILLING VENTURE WHICH WE DISCUSSED AT THE
INTERNATIONAL GEOLOGICAL CONGRESS THIS IS TO ADVISE THAT
CONSIDERABLE POSITIVE INTEREST HAS BEEN SHOWN HERE FOR THE PROJECT

WOULD APPRECIATE YOUR CONTACTING YEVGENY A. KOZLOUSKY, MINISTER OF
GEOLOGY, AND SUGGEST TO HIM THAT HE CONTACT ME AS SOON AS POSSIBLE
REFERENCE SUGGESTIONS ON HOW SOON AND WHERE FURTHER DISCUSSIONS
MAY BE HELD TO ADVANCE PLANS.

PLEASE ACKNOWLEDGE RECEIPT OF THIS TELEX AND ADVISE ME OF
MINISTER'S RESPONSE.

BEST REGARDS.

MICHEL T. HALBOUTY
HOUSTON, TEXAS
THX 910 881 4599
THX 910 881 4599

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Completed 7:45 am

Michel T. Halbouty

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23.11.84
TO: HOUSTON TEXAS USA
ATT: MICHEL T. HALBOUTY
FROM: INST. OF THE LITHOSPHERE

THANKS YOUR TLX 21.10.84 REPLY BE SENT AS SOON AS POSSILE

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Michel T. Halbouty

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TO: HOUSTON TEXAS USA
ATT: MICHEL T. HALBOUTY
FROM: INST. OF THE LITHOSPHERE

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BOGDANOV

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Michel T. Halbouty

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YOUR CALL IS ON LINE
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HOUSTON, TEXAS
DECEMBER 17, 1984

DR. N. A. BOGDANOV
INSTITUTE OF THE LITHOSPHERE
ACADEMY OF SCIENCES OF THE USSR
MOSCOW, USSR

DEAR NIKITA:

I AM UNABLE TO TRANSMIT THE FOLLOWING TTELEX TO MINISTER YEUGENY
A. KOZLOVSKY AND WOULD APPRECIATE YOUR DELIVERING IT TO HIM FOR
ME.

QUOTE: REFERENCE OUR CONVERSATION DURING THE INTERNATIONAL
GEOLOGICAL CONGRESS LAST AUGUST, I HAVE DISCUSSED THE
POSSIBLE JOINT UNITED STATES-SOVIET UNION DRILLING
PROJECT IN THE NAVARIN BASIN WITH THE APPROPRIATE
PEOPLE AND AN INTEREST HAS BEEN EXPRESSED.

I WOULD APPRECIAT YOUR INFORMING ME OF YOUR PLANS REGARDING
THIS MATTER AS SOON AS POSSIBLE.

BEST REGARDS.

MICHEL T. HALBOUTY

NIKITA BOGDANOV:

IT IS IMPORTANT THAT I RECEIVE AN EARLY REPLY FRM THE MINISTER AND
WOULD APPRECIATE YOUR ASSISTANCE IN THIS MATTER.

BEST REGARDS,

MICHEL T. HALBOUTY
HOUSTON, TEXAS
THO 91 881 4599

CORRECT TLXXXX TELEX IS 910 881 4599.

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WESTERN UNION MANUAL ASSIST POSITION

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MAY I HELP YOU

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TRANSACTION NUMBER: 8146752
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YOUR CALL IS ON LINE
GA

HOUSTON, TEXAS
DECEMBER 20, 1984

DR. N. A. BOGDANOV
INSTITUTE OF THE LITHOSPHERE
ACADEMY OF SCIENCES OF THE USSR
MOSCOW

PLEASE ADVISE IF YOU HAVE RECEIVED MY TELEX DATED DEC. 17 AND
IF IT HAS BEEN DELIVERED TO MINISTER KOZLOVSKY. I WOULD SINCERELY
APPRECIATE AN IMMEDIATE REPLY.

BEST REGARDS.

MICHEL T. HALBOUTY
HOUSTON, TEXAS
TNX 910 881 4599

411484 LITOS SU
.....

Michel T. Halbouty

Attachment 8

MTHALBOUTY HOU

RCA DEC 25 0537
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25.12.84
TO: HOUSTON TEXAS USA
ATT: DR. M. HALBOUTY
FROM: INST. OF THE LITHOSPHERE, MOSCOW, USSR

DEAR MR HALBOUTY I AM IN RECEIPT YOUR TLX AND ALREADY PASSED
IT MR. E. KOZLOUSKY

BRGDS
BOGDANOV

MTHALBOUTY HOU

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Michel T. Halbouty

MTHALBOUTY HOU

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411484 LITOS SU

27.12.84

TO: HOUSTON, TEXAS, USA

ATT: M. HALBOUTY

FROM: INST. OF THE LITHOSPHERE, MOSCOW, USSR

PLSE BE ADVD DUE MR KOZLOUSKY REQUEST SENDING YOU HIS REPLY ON YOUR
TELEXES AS FOLLOWS

DEAR MR HALBOUTY TEXT OF OFFICIAL ANSWER ON YOUR PROPOSAL OF COMBINED
US-SOVIET DRILLING IN NAVARIAN BASIN SENT TO SOVIET EMBASSY IN
WASHINGTON STP I REQUESTED SOVIET EMBASSY TO SEND THIS TLX YOUR
ADDRESS STP BRIEFLY IT RUNS AS FOLLOWS DURING OUR MEETING IN CONGRESS
I INFORMED YOU ABOUT SITUATION IN ABOVE DRILLING REGION STP MY
AUTHORITIES CONSIDERED IT NOT POSSIBLE TO CARRY OUT THIS KIND
INVESTIGATIONS STP

REGARDS

KOZLOUSKY

SINCERELY YOURS BOGDANOV

MTHALBOUTY HOU

411484 LITOS SU

REPLY VIA ITT

Michel T. Halbouty

EMBASSY OF THE
UNION OF SOVIET SOCIALIST REPUBLICS
1125 - 16TH ST. N.W.
WASHINGTON, D. C. 20036

Michel T. Halbouty
Chairman of the Board
Michel T. Halbouty Energy Company
5100 West Heimer Road
Houston, Texas 77056

January 4, 1985

Dear Mr. Halbouty,

Please find enclosed an unofficial translation of the letter by the USSR Minister of Geology Mr. Yevgeniy A. Kozlovsky addressed to your attention.

Sincerely,



Edward R. Malayan
First Secretary
U.S.-Soviet bilateral
relations

Enclosure: as stated.

Michel T. Halbouty

Unofficial translation

Dear Mr. Halbouty,

I would like to inform you that appropriate Soviet authorities having reviewed your proposal concerning geological and geophysical exploration in the Navarrin Basin in the Bering sea, did not find it possible for the Soviet side to take part in this type of activities.

As you probably know, the above area is a subject to the current U.S.-Soviet negotiations on the delimitation of the sea, and pending an agreement to this effect it would be premature to carry out any exploration of the proposed type.

Respectfully,

Yevgeniy A. Kozlovsky
Minister of Geology,
Moscow, USSR

Michel T. Halbouty