

# THE MILITARY BUDGET AND NATIONAL ECONOMIC PRIORITIES

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## HEARINGS BEFORE THE SUBCOMMITTEE ON ECONOMY IN GOVERNMENT OF THE JOINT ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES NINETY-FIRST CONGRESS FIRST SESSION

JUNE 3, 4, 5, 6, 9, 10, 11, 12, 13, 17, 23, AND 24, 1969

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# THE MILITARY BUDGET AND NATIONAL ECONOMIC PRIORITIES

## THE ECONOMIC BASIS OF THE RUSSIAN MILITARY CHALLENGE TO THE UNITED STATES

MONDAY, JUNE 23, 1969

CONGRESS OF THE UNITED STATES,  
SUBCOMMITTEE ON ECONOMY IN GOVERNMENT  
OF THE JOINT ECONOMIC COMMITTEE,  
*Washington, D.C.*

The Subcommittee on Economy in Government met, pursuant to notice, at 10 a.m., in room S-407, the Capitol, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senators Proxmire and Jordan; and Representatives Conable and Brown.

Also present: John R. Stark, executive director, and Loughlin F. McHugh, economist.

Chairman PROXMIRE. The subcommittee will come to order.

I should like to take this occasion to express my deep sadness and the sadness of all members of the Joint Economic Committee at the death of Leon Herman. Mr. Herman was for many years a consultant to the committee on matters relating to developments in the Communist world. As a senior specialist on Soviet economics in the Legislative Reference Service at the Library of Congress, he gave freely of his time, and his unstinting efforts in the coordination of research made it possible for this committee to provide the Congress and the American people with a vast amount of useful information helping all of us to more fully understand the workings of the Soviet system. At the time of his death he was preparing for these present hearings and also guiding two other major projects on Communist world developments. His untimely death has taken from us a trusted friend and able scholar.

This morning the Subcommittee on Economy in Government of the Joint Economic Committee, begins 2 days of hearings on "The Economic Basis of the Russian Military Challenge to the United States."

At this point in the record we will insert the announcement of these hearings and schedule of witnesses.

JUNE 11, 1969.

CONGRESS OF THE UNITED STATES—JOINT ECONOMIC COMMITTEE, SUBCOMMITTEE ON ECONOMY IN GOVERNMENT

Senator William Proxmire (D-Wis.), Chairman of the Subcommittee on Economy in Government of the Joint Economic Committee, announced today that the Subcommittee will hold two days of hearings on "The Economic Basis of the

Russian Military Challenge to the United States." These hearings will be held on June 23 and 24. The schedule of witnesses is attached.

Chairman Proxmire noted that his Subcommittee is currently engaged in an intensive examination of the U.S. military budget in the light of overall national economic priorities. In announcing the hearings on the Soviet military budget and its national priorities, Chairman Proxmire stated:

"It is obvious that the military potentiality of a Soviet economy that is half the size of America's has a central bearing on the size and shape of our own military budget. Our military thinking and indeed the concern of all Americans with respect to military preparedness is shaped by the threat—actual and potential—which the Soviet Union represents to this nation.

"There is a common view that the dictatorship ruling the Soviets has unlimited resources which it can commandeer at a moment's notice to accomplish whatever goals it sets for itself, including, if and when it so desires, marshaling as many resources as it deems necessary to accomplish a particular goal—such as military supremacy. While most thoughtful Americans recognize this view as a gross exaggeration, there is a real need to assess the economic capabilities of the Soviet Union to accomplish its varied objectives."

Senator Proxmire noted, "At these hearings, we shall have the thoughtful commentaries of outstanding experts who have long followed the course of events in the Soviet Union. They will give us their appraisal of current developments and near-term prospects in Soviet affairs. This appraisal can immensely help Congress in its consideration of our own priorities. It should also provide valuable background material for the Congress in assessing our own military needs.

"We hope to obtain from these hearings the best and most current information dealing with such matters as: the rate of economic growth in Soviet output; the proportion of its output going to the military, present and prospective; the progress of projected plans for farming, housing, and consumption; changes in the decision-making process and the influence of China and Czechoslovakia on the course of developments within the Soviet Union and among the other members of the bloc."

Chairman Proxmire pointed out that the Joint Economic Committee has maintained a continuing interest in Red-bloc developments. It has conducted some of the most authoritative studies in this area and is uniquely qualified to make investigations of economic developments in these most important areas.

In this context, the Chairman noted that the Committee, through its Subcommittee on Foreign Economic Policy is currently conducting two major studies of Soviet-bloc countries. The hearings now being announced will serve as a preview of these more intensive studies to be completed in the near future. "Meanwhile," Chairman Proxmire repeated, "the hearings will provide timely background information for budgetary decisions now being formulated in Congress."

Scheduled witnesses:

*Monday, June 23, 1969, 10 a.m.*

Merle Fainsod, Professor of Political Science, Harvard University.

George Fischer, Professor of Sociology, City College of New York.

Alex Inkeles, Professor of Sociology, Harvard University.

Thomas W. Wolfe, Senior Staff Member, Rand Corporation (Washington, D.C.).

*Tuesday, June 24, 10 a.m.*

Abram Bergson, Professor of Economics, Harvard University.

Joseph S. Berliner, Professor of Economics, Brandeis University.

Holland Hunter, Professor of Economics, Haverford College.

Chairman PROXMIRE. We have with us today three distinguished scholars who are experts on the Soviet Union: Merle Fainsod, professor of political science at Harvard University; Alex Inkeles, professor of sociology at Harvard University; and Thomas Wolfe, senior staff member of the RAND Corp.

The subcommittee just completed 3 weeks of intensive review of the U.S. military budget in the context of overall national priorities. In the course of these hearings, it has been repeatedly emphasized that the actual and potential threat of the Soviet Union to the United

States and indeed to the world is the central fact which dominates our military planning. In announcing these hearings I noted:

It is obvious that the military potentiality of a Soviet economy that is half the size of America's has a central bearing on the size and shape of our military budget. Our military thinking and indeed the concern of all Americans with respect to military preparedness is shaped by the threat—actual and potential—which the Soviet Union represents to this Nation.

Thus the relevance of these hearings today is beyond question. Just as the subcommittee has been examining the ordering of our national priorities at home, we now ask our experts to help us understand the political, social, and economic processes at work within the Soviet Union. Today's witnesses are specialists who can, and no doubt will, give us a firmer grasp of the source and political forces shaping the vital decisions which the Russian authorities must make in allocating the resources available to that country. Can the Soviet Government devote almost unlimited resources to the Military Establishment or is it faced with much the same problems as we have found this Nation facing in meeting its primary objective of achieving maximum national security and well-being in the long run?

Are the Russian authorities stepping up sharply their military forces and armaments, and, if so, to what extent are they affecting other goals, such as increased education and improvement and expansion of their capital base—priorities which in the long run would provide more efficiency and more output?

We are also interested in how decisions are made to change the emphasis placed on different priorities. If the Military Establishment has achieved ascendancy at present, as some believe, what is the likelihood that other major groups—say the intellectuals—will regain lost ground? What pressures can we expect the people generally to exert as they see their dreams of a better life fading away? Is there any prospect that dissent can be organized and, if so, in what direction?

Recent developments in Russian involvement with Red China and Czechoslovakia undoubtedly affect not only the Russian people but the rest of the world as well. What are the implications of the developments—for the Soviet? for the United States? Similar questions are raised by the naval buildup, as well as the reported changed composition of the military forces.

These are all very general, but also very important questions. Light on these subjects can be very helpful to the subcommittee, the Congress and the Executive, and the people generally—indeed, hopefully these decisions may be helpful to the Congress in its present deliberations on the Federal budget for the year ahead.

As those who have followed the work of the Joint Economic Committee will know, the committee has had a longstanding and deep concern for national understanding of economic developments in the Soviet Union and the impact of those developments on Soviet-United States relationships. The committee through its Subcommittee on Foreign Economic Policy is currently conducting two major studies of Soviet bloc countries. The current hearings will serve as a preview of these more extensive studies to be completed in the near future.

Let me now introduce the witnesses who are with us today:

Professor Fainsod is professor of government and former director, Russian Research Center, Harvard. He is the author of the classic book on Soviet Government, "How Russia Is Ruled," first published just after Stalin's death; it was revised and published in a new edition in 1963.

Professor Inkeles is professor of sociology at Harvard. He has been a longtime student of Soviet social system for Russian Research Center and U.S. Air Force. He also specializes in public opinion in the U.S.S.R.

Dr. Thomas Wolfe—senior specialist on Soviet military in RAND—is a former senior air attaché in Moscow, and author of "Soviet Strategy at the Crossroads."

And I would just like to say before I call on Professor Fainsod to lead off that I have had the great privilege of studying under Professor Fainsod some years ago at Harvard, both in a course in American political parties, in a course in communism, and I should say in a third course, a seminar on public administration. I have been fortunate in having many fine teachers in my life, but I think he is unquestionably in my mind the wisest, the best balanced, and most convincing and persuasive that I have had.

I am delighted, Professor Fainsod, that you are our leadoff witness this morning.

#### **STATEMENT OF MERLE FAINSDOD, PROFESSOR OF POLITICAL SCIENCE, HARVARD UNIVERSITY**

Mr. FAINSDOD. Thank you very much, Senator Proxmire.

I am afraid I can't possibly live up to that advance billing. But at least we can open the discussions.

As I understand it, the concern of the subcommittee this morning is with the decisionmaking process in the Soviet Union, the way in which national priorities are established, and the role of various group interests in the establishment of priorities.

Let me begin with the political system. In a one-party system of the Soviet type in which the ultimate power of decision reposes in a Politburo oligarchy dominated by party functionaries, interests express themselves in ways quite different from those which prevail in political systems where interest groups are free to organize, to appeal to the electorate, and voice their demands before legislative and executive bodies. Soviet politics tend to be bureaucratic politics, and bureaucratic politics typically take the form of intra-elite struggles which reflect conflicting institutional interests and group views. Party functionaries who are at the center of the Soviet political system, may unite in fending off challenges to their predominance, but since their responsibilities encompass the whole of Soviet society, they also reflect the variety of interests present in that society. Thus, those party functionaries charged with responsibility for agriculture may plead the case for agricultural investments, while those responsible for various industrial sectors may identify with interests in their charge. And similarly, regional and republic secretaries assert the claims of their localities, and each section of the party apparatus tends to become the guardian of its own preserve.

The armed forces have their own interest to safeguard. Like military establishments elsewhere, the Soviet Armed Forces press for a high level of military expenditures and have their own internal problem of allocating resources between the older, more conventional arms and the newer strategic nuclear missile forces. There are built-in institutional frictions between the military professions and the party representatives in the army who play a watchdog role. The security police no longer exercise the awesome power which they enjoyed under Stalin, and like the armed forces, they are party-controlled and penetrated. But they too have their vested bureaucratic interests and are naturally concerned to expand their power and influence. Since they live and grow by crisis and vigilance, they are under constant temptation to create the incidents which will testify to their indispensability.

The state bureaucracy represents another identifiable interest formation. While it may be joined together by a common desire to fend off undue interference by party functionaries, it is actually divided and fragmented among various economic and other sectors, each of which seeks maximum support at the expense of its bureaucratic competitors. Nowhere is the process of bureaucratic politics more visible than in the continuing battle for the allocation of scarce resources as spokesmen for the military, heavy industry, light industry, agriculture, and other interests press their rival claims.

Factory and other enterprise managers in trade and agriculture constitute still another source of pressure. As Soviet press reports make amply clear, the thrust of their demands for many years has been more autonomy in decisionmaking and freedom to marshal their internal resources in the interests of efficient production. Given the growing complexity of the Soviet economy, accommodation to their aspirations appears increasingly essential to rational management.

The scientists, too, represent an influential group with growing influence. The leverage which they exert is maximized because they hold the key to technological progress. Their crucial indispensability lends force to their demands for scientific freedom and for adequate supporting resources.

The cultural elite—the intelligentsia, so-called—makes up still another cluster of interests. It is expected by the regime to serve as an instrument of indoctrination in official party values, but the cultural elite is itself divided between those who are prepared to accept the role of custodians of party orthodoxy and others who aspire to function as critics and innovators. While the party leaders have been willing to make room for so-called orthodox dissent or within-system criticism, they have sternly rebuffed and are likely to continue to condemn any challenge to the party's infallibility.

Even at the base of the Soviet social pyramid rank and file, peasants and workers are now in a position to exert greater influence on the course of elite decisionmaking. When collective or state farm workers respond to inadequate incentives by listless performance in the public sector, by transferring their energies to private plots, or by abandoning their jobs to seek better paid work in the industrial centers, they in effect bargain to improve their position. They vote with their feet. In the absence of large-scale terror, there is a point beyond which they cannot be driven. If more production is to be



extracted from them, improved incentives have to be provided. The state and party functionaries responsible for increasing agricultural output find themselves forced to plead the case of their peasant clients. In a perhaps perverted form, what takes place is a form of indirect representation.

The same principle applies more or less to the industrial worker. In the absence of forced labor, workers abandon unattractive jobs in search of better opportunities. Those who are responsible for the recruitment of labor in difficult circumstances—whether they be enterprise directors or party secretaries—recognize that they must provide incentives and amenities if they are to attract a work force. Willingly or unwillingly, they become spokesmen for the workers' needs and aspirations when they argue the case for greater incentives as a key to increased production.

While it would be incorrect to state that organized interest groups comparable to those found in pluralistic western societies presently exist in the Soviet Union, there is evidence to suggest that a limited degree of group activity does take place. While there is no present indication of any disposition on the part of the party leaders to abandon the party's political monopoly or to tolerate the organization of opposition groups either within or outside the party—indeed there has been a tightening of restrictions within the past few years—they cannot escape the problem of responding to the changing social aspirations of an increasingly industrialized and professionalized society or relating themselves to the variety of interest which it has been spawning. With the abandonment of mass terror, there is much greater reliance on economic incentives to induce responses which the party leadership deems essential. Moreover, in ministering to the needs and directing the destinies of a highly industrialized country, the party leadership must perforce accord greater weight and authority to those elements in and outside the party who possess the knowledge and technical skill which make an industrial society work. As the economy and society become more complex and differentiated, the influence of professionalism will probably increase and tendencies toward pluralization of authority and influence are likely to become more clearly manifest. As the diverse interests which the party seeks to manipulate exercise greater leverage, one of the primary concerns of the party leadership becomes that of mediating and balancing the claims of the functional and professional groups whose synchronized efforts are required to maintain the system's forward momentum.

The Soviet leadership, like our own, shapes and reshapes its national priorities in the context of both domestic and international problems and developments. The recent history of resource allocations to the Soviet military may serve to illustrate the process. The accumulation of domestic problems in agriculture and industry toward the end of Khrushchev's reign and a somewhat more relaxed atmosphere in Soviet-American relations led to a cutback in the defense budget from 13.9 billion rubles in 1963 to 13.3 billion in 1964. This is of course the officially announced budget. After Khrushchev's removal, Kosygin announced at a meeting of the Supreme Soviet that the defense budget for 1965 would be further reduced by 500 million rubles as compared with 1964. As one might expect, the reaction among Soviet military

leaders was less than enthusiastic, and in the early months of 1965 the military press conducted a campaign in favor of increased expenditures. *Krasnaia Zvezda*—Red Star—the official journal of the Soviet Armed Forces argued in effect that there were no ruble-saving short cuts to Soviet security.

While this campaign by the military for increased expenditures was proceeding there appears to have been a disagreement within the collective leadership on the allocation issue. Podgorny who is presently the Chairman of the Presidium, then party secretary, in a speech at Baku in May 1965 remarked that “priority development of industry and the strengthening of defense” were not currently of primary importance. Less than 2 weeks later, however, he was contradicted by Suslov in a speech delivered in Sofia. Suslov called for the maintenance of defense at the “highest levels,” even though this might necessitate “material sacrifices” by the Soviet people.

The conflict apparently was resolved—or shall I say “papered over”—by mid-1965. In early July, Brezhnev, speaking to military graduates in the Kremlin, stressed the need “to strengthen the country’s defense capability.” Shortly thereafter, Kosygin, speaking at Volgograd, while noting that the upkeep of the armed forces “demands very large expenditures which we would gladly devote to other branches of the national economy”—in this way expressing some dissent from the Brezhnev proposition—nevertheless added that in the present situation, to economize on defense would be acting against the interests of the Soviet state and the Soviet people.” The military appeared to have won their point; the 1966 budget registered an increase of 600 million rubles. Subsequent budgets registered even larger increases. From 13.4 billion rubles in 1966, the defense budgets increased to 14.5 billion rubles in 1967, 16.7 billion in 1968, and 17.7 billion in 1969. Nor do these figures exhaust the sum of military spending. Expenditures for military research and development, which are hidden in other parts of the Soviet budget, appear also to have been increasing, if a recent study by the OECD can be assumed to be correct.

Chairman PROXMIRE. Are the ruble and the dollar roughly equivalent?

Mr. FAINSOD. The ruble at the official rate of exchange is a dollar ten cents. But that of course is official.

Now, meanwhile, we find the Soviet military making a strong case for additional allocations of resources. The decisions of the Soviet leadership after the 6-day Arab-Israeli war to rearm its Arab clients, to enlarge the Soviet Mediterranean Fleet, and to improve the Soviet air lift capacity underline mounting Soviet political and military commitments in the Middle East and Mediterranean areas although I should perhaps interject here that this reaching out for influence does not necessarily imply bringing nuclear power to bear. The occupation of Czechoslovakia and the prospect of future border clashes with the Chinese sharpen the case for increase ground forces. The broadening of the arms race to include ABM’s and MIRV’s hold out the promise of still further escalation of military spending.

The Soviet Union is under heavy pressure to devote its energy and resources to domestic problems, to invest more heavily in agriculture, housing, and consumer goods, sectors of the economy which it has

historically stunted. But it is doubtful that will yield to such pressure as long as it feels, to use Kosygin's words, that "to economize on defense would be acting against the interests of the Soviet state and the Soviet people." Both the Soviet Union and the United States have a mutual interest in adopting a moratorium in the construction of anti-missile systems and in limiting the arms race in offensive weapons. But it is one thing to proclaim a mutual interest and quite another to embody it in arrangements and agreements in which both sides can have confidence and trust. That arduous task is still before us, and it will not be made easier—indeed it may become infinitely more difficult—if we now launch a new round in the arms race which can only increase insecurity on both sides.

Chairman PROXMIRE. Thank you, Professor Fainsod.  
Professor Inkeles, you are recognized.

**STATEMENT OF ALEX INKELES, PROFESSOR OF SOCIOLOGY,  
HARVARD UNIVERSITY**

Mr. INKELES. Thank you.

I would like to begin my statement by affirming that in our experience every government operates within some system of constraints. The structure of international relations, the extent of material geographic and human resources, and the cultural, social structure and political patterns of the nation constitute the most obvious and perhaps the most important of these constraints. Governments, and those who exercise their powers, will of course vary greatly in how far they are aware of these constraints, in how accurately they assess the strength of them, in the weights assigned to their importance, and in their ability to counter, avoid, deflect, or capture the forces represented by these constraints. Even the most absolute of dictators takes cognizance of some of these forces in making his decisions. In the long run, no leader escapes their influence entirely, or even in large degree. But this is pre-eminently the sort of long run to which we can apply the dictum that "in the long run, we are all dead."

In my estimation Soviet leaders have relatively consistently shown a keen awareness of the structure of international relations and have generally made fairly conservative assessments of their ability to discount the system of forces arrayed in the international arena. In the more recent past the greatest risks Soviet rulers took in the international arena were in Hungary and Cuba. Hungary did not develop into a real test of commitment, but in the Cuban venture their response to our pressure was decidedly to avoid further confrontation. Allowing for the differences in geographical and strategic position, and their particular sense of their national interest, we may say that Soviet decisionmakers operating in the realm of international affairs seem at least as responsive to, and realistic about, external constraints as are their opposite numbers in the United States.

Much the same thing may be said of constraints inherent in the material resource situation of the U.S.S.R. as it impinges on foreign policy decisionmaking. We must, of course, acknowledge that the armaments level maintained by the Soviet Union, both in conventional forces and in nuclear systems, places an enormous burden on the

economy and, in standard of living terms, exacts exceptional sacrifices from the Soviet people. Outside the U.S.S.R., however, in the stationing of its forces on the world scene, and in the commitment to and actual delivery of military and economic aid, the Soviet leadership has not shown any marked disposition to extend itself very far beyond what its resource base permits without severe strain.

In both Cuba and the United Arab Republic the intensity of the Soviet concern to keep the cost of external ventures down to modest and firmly calculated levels is readily apparent. Despite the American tendency to assert its presence, and even to seek dominance, in virtually every theater of the world, the Soviets have largely restricted themselves to Europe and other areas more nearly contiguous to their territory. They have found it possible to leave the field in Africa and South America almost exclusively to the United States. In this respect they seem to have a capacity for reserve superior to that of the United States, which has not, to anything like the same degree, managed to keep its commitment of resources in Vietnam and elsewhere either so modest or so subject to advanced planning and precise calculation. Our involvement in Vietnam, in particular, has become a runaway intervention. There is no record, at least known to me, of anything comparable in the exercise of Soviet foreign policy. We cannot, of course, say whether the Soviet pattern might not have been more nearly like ours if either the Hungarian resistance or the Czech response to invasion had turned into something more substantial and persistent. Just where the Soviet military have stood in the making of these policies is not certain; but it seems safe to conclude that the Government has evidently not been the captive of any substantial military adventurism.

The critical difference between the Soviet Union and the United States in decisionmaking concerning foreign affairs lies in the role of pressure groups external to the small circle of those professionally concerned with setting and executing foreign policy. No Soviet foreign minister or minister of defense need expect ever to be called before a legislative committee to justify his choice of policy nor to defend its implementation; neither need he ever confront a critical, let alone hostile, press conference of well informed and vigorously independent correspondents. The press, the radio, and such journals as deal with political matters will all devote themselves uniformly, single-mindedly, and assiduously to proclaiming, explaining, justifying and praising the Government's policy as sound, rational, humane, necessary, progressive and historically inevitable. No organization of veterans, of area specialists, or of interested professors, no brotherhood based on ethnicity or religion, nor association of parents or whatever will ever come forth to declare itself opposed to the official foreign policy or to favor one or another alternative. If such organizations appear on the scene at all, they will not be autonomous sociopolitical entities, but rather will inevitably be creations of and instruments of the government itself.

Finally, so far as domestic public opinion at large is concerned, the makers of Soviet foreign policy will usually act as if it did not exist, or is something to be discounted insofar as it does exist. A vast army of oral agitators supplements the work of the formal

media of mass communication to further describe the official policy, to answer questions, to assuage popular doubts and forestall criticism. Although these agitators also have the nominal responsibility of transmitting popular opinion upward through the hierarchy, there is little reason to assume they are very assiduous in reporting popular confusion and disagreement, if any dare be voiced, in regard to foreign policy issues.

Summing up, then, we emerge with a picture of Soviet foreign policy makers operating in a situation of exceptional freedom from the sort of pressures exerted by institutions, special interest groups, and the public at large in the United States. By comparison with the quiet and shadowy depths in which Soviet foreign policy is unobtrusively shaped, American foreign policy is made in a brightly lighted goldfish bowl in which everyone may and does drop a sharp and well-baited hook. This is not to assert that even in the Soviet Union the decisions reached do not reflect competing interests among segments of the armed forces, demurrals from economists and national planners, and disagreements between the adherents of diverging strategies among the political leaders and the foreign office experts. Such tensions never were completely absent in the making of any great nation's foreign policy, even in the Soviet Union under Stalin. The absence of a supreme leader has undoubtedly created a climate more conducive to the open manifestation of such differences. I must leave elaboration of the details of such struggles as may now be in progress to those more specialized in this particular branch of Soviet studies. I consider myself a "Sovietologist," which is somewhat more generic than "Kremlinologist." My point is limited to indicating how exceedingly free the makers of Soviet foreign policy are from the sort of constraints built into the institutions and the political culture of the United States.

I would like to turn now briefly to the situation of making foreign policy and setting domestic goals in the Soviet Union.

In the making of decisions concerning domestic policy the situation of action for the policymaker is perhaps not drastically altered, but it nevertheless is substantially changed.

On the domestic scene the analog to the system of international states would be the system of regional governments. Despite its nominally federal structure, the U.S.S.R. is an extremely highly centralized state. The most critical functions are not devolved upon the union republics, but remain in the hands of national "all-union" ministers. The instruments of force, as represented in the military, border guard, paramilitary and main police units are all under central control. The Communist Party, the key instrument of rule and the real locus of power is organized on a strictly national basis; that is to say, the national party is not a federation of regional parties as is the Government, and there is no structure of dual membership, one republican and one all-union. Men do not rise to prominence in the party because they have a local base of popular support, but rather come through the bureaucratic hierarchy and are assigned to posts, regional or otherwise, much as are corporate executives or foreign service officers. The allegiance, or at least responsiveness, of these bureaucrats is almost always to the center. The governments of regional units, including the union republics which nominally have special constitutional status, are for all

practical purposes merely local agents of the central powers. The central leadership seems to act almost totally without consideration of the relative popularity of particular measures in different regions of the country, including the regions most vitally concerned with any action.

Periodic campaigns conducted against various forms of what is termed "local nationalism" suggest that purely local loyalties do exist, and may form a focus for resistance to some policies initiated at the center. This disorder seems, however, to afflict mainly intellectuals, and thus to involve loyalties to local culture and tradition, rather than being manifested by government officials concerned with the protection of local political or economic interests. Undoubtedly there is more of the latter than the meager public record makes visible to students of Soviet affairs. Nevertheless, we may conclude that the internal system of states within the Soviet polity permits the central authorities to operate with freedom from constraints far exceeding their freedom of action in the international realm, including that aspect of international affairs which involves dealing with other Communist nations. Consequently, in setting priorities for national goals the Soviet leadership enjoys exceptional autonomy and flexibility, especially as compared to the national governments of the United States, France, Italy, or Yugoslavia, in all of which local and regional forces constitute major constraints on the freedom of action of the central authorities.

The absence of effective local pressures and resistance is a factor, as well, in the freedom of action Soviet authorities have over the allocation and rate of expenditure of natural resources and material wealth used for domestic purposes. By contrast with the relative caution which seems to characterize the expenditure of resources abroad, the approach to conservation of material and human resources at home has, over a long period of time, been such that we may justly characterize it as profligate. Most shocking was the callous disregard to human life in the purges and forced labor camps, but the losses of both livestock and humans attendant upon the program of forced collectivization of agriculture, and to a lesser degree the forced draft industrialization, were also very substantial. It is difficult to believe that such exceptional destruction of human and material resources would have been tolerated in any nation in which the popular will could be expressed politically, or in which regional or occupational groups could have effectively made their wishes felt. In the post-Stalin era, however, wanton expenditure of talent and material means has been largely avoided, and the sin of "giantism" which characterized Stalin's approach to the building of plants, dams, and the like has been largely overcome. A more balanced, sober and moderate approach to the use of the nation's material wealth and human resources now prevails in the Soviet Union.

This shift came about because certain of the alleged objective circumstances which seemed to justify all-out crash programs no longer exist; because of differences in temperament which distinguish the men who now run the Kremlin from Stalin and his cohorts; and because the exceptional waste inherent in Stalin's approach finally became unmistakably evident in numerous economic indicators which made it impossible any longer to disguise how far mines had been depleted and forests decimated. From the special perspective of de-

cisionmaking, however, we must also take cognizance of a relatively new phenomenon on the Soviet scene, namely, the emergence of experts who, in the name of efficiency, opposition to waste, and the securing of future national interest, came increasingly to influence policy, even if in modest degree, in much the same way a special interest group might in the United States.

Such special interest groups have evidently emerged not only in industrial management and within the planning agencies, but also, indeed most notably, in scientific groups having their main base in the universities, in major research institutes, and in the Academy of Sciences. The most dramatic of these developments in the recent past was a campaign to save the pristine waters of Lake Baikal from pollution threatened by the discharge of industrial waste from a massive new plant to be located on the lakeshore. The pleas of leading natural scientists, arguing either to prevent the establishment of the plant altogether or for much greater investment in pollution control, were quite exceptional in the vigor with which they openly challenged a decision evidently taken at fairly high levels in the economic ministries. And some editors showed unusual courage in giving so much space and evident support to what in an earlier era would have been defined as economic sabotage and antistate activity, immediately punishable by 10 years in a forced labor camp. Interestingly enough, this affair occurred about the same time that the despoilation of Lake Tahoe was being discussed in our press by American conservationists.

The raising of such moderately independent voices in defense of the national resources of the country is but one modest sign of a phenomenon more widespread in the post-Stalin era. It represents for the Soviet political system the beginnings, however weak and diffuse, of a tendency toward what political scientists call interest articulation." There is, of course, no opportunity to express and formulate such interests in anything like the institutionalized way so familiar in the United States and other democratic political systems. There is no Soviet manufacturer's association, nor an association of factory managers or of collective farm chairmen, or of conservationists. The few mass membership organizations, such as the trade unions, to which the Soviet Constitution gives legitimacy, defining them as handmaidens of the party, have absolutely no autonomy. They are not voluntary organizations as we ordinarily understand the term. They serve not as vehicles for expressing the interests and views of their membership, but rather as channels for conveying the Communist Party's views down the line and for mobilizing people around goals established by the national leadership of the Communist Party. Nevertheless, more distinctive voices are now more often heard questioning immutable decisions of organizations intimately associated with the supreme leadership, even if not speaking openly against that leadership itself. The most dramatic of these may properly be called voices of dissent. We must acknowledge that such truly independent stands are taken by only a pitiful few, men of exceptional courage who in most cases have been quickly silenced by assignment either to jail or to mental institutions. Yet these weak voices of a very small minority, entirely without any organizational base, apparently are echoed, even if in a very tempered way, in statements and efforts by other groups operating more within

the system and having an organizational base as much a part of the Soviet establishment as the Academy of Sciences.

These more cautious and tempered voices are, of course, likely to be expressed only against specific decisions, and will be exclusively directed against specific subsegments of the bureaucratic hierarchy rather than against the central establishment itself. It is not now clear whether, within the center, the military have succeeded in gaining an autonomy previously not enjoyed by them, let alone some degree of dominance over economic planners or the more purely political figures in the Government. It is my impression that in the Soviet Union the primacy of politics is still the dominating principle, and that military considerations are more or less totally subordinate to the political. The Soviet Union lags far behind the United States in permitting the articulation of special and popular interests in the process of national decisionmaking, yet in the primacy of the civil over the military interest, the Soviet Union may yet have something to teach us.

Chairman PROXMIRE. Thank you, Professor Inkeles.

Our last witness is Prof. Thomas Wolfe.

Professor Wolfe, you may proceed.

**STATEMENT OF THOMAS W. WOLFE, SENIOR STAFF MEMBER, THE RAND CORP., WASHINGTON, D.C.**

Mr. WOLFE. Thank you for the opportunity to be here, Mr. Chairman.

**THE PROCESS OF POLICYMAKING IN THE SOVIET UNION**

Perhaps the first thing to be said is that there is a great deal more speculation than hard fact about how the process of policy and decisionmaking in the Soviet Union really works. In part, this is no doubt due to the secrecy that pervades many aspects of the governing machinery of the Soviet Union. Who, for example, presides over meetings of the party Politburo—the top decisionmaking body of the Soviet system? This seemingly innocent and elementary bit of information cannot be had from the public record today, much less any candid accounting of how the collective leadership conducts its business within the Politburo or of the substance of the issues over which its members may agree or disagree.

But the fog of secrecy is not the only, and perhaps not even the chief, impediment to understanding how decisions are made and how policy priorities are established in the Soviet Union. There is, as a matter of fact, a great variety of direct and indirect information available on the activities of the party and state bureaucracies and upon the issues with which the Soviet leadership is confronted. The problem perhaps is more often one of interpretation and analysis of this information, of finding an adequate conceptual model to explain how the system operates and to help identify the determinants which lie behind specific “decisions” and “actions” of the Soviet party and government leaders. Given the differing conceptual models applied to the analysis of Soviet behavior—each with its own set of assumptions and its own logic of explanation—it is not surprising that one encounters quite disparate descriptions of the Soviet decisionmaking process and the policies it produces.



## TWO CONTRASTING CONCEPTUAL MODELS

I shall not attempt here to delineate the many conceptual approaches to an understanding of Soviet "reality" that have been favored at one time or another by analysts of Soviet society and politics. Let it suffice, rather, to mention what appear to be the two most sharply contrasting models, which bear particularly upon the question of how policy priorities are established and implemented in the Soviet system.

The first of these has a lineage reaching back to the model of a self-perpetuating totalitarianism, that was widely employed to describe the Soviet system under Stalin, during its earlier stages of forced industrial growth and consolidation of Communist authority and legitimacy. This model has undergone some revision in the course of time, in recognition of the fact that, as the Soviet Union has evolved into a more mature and complex industrial society, there has been a gradual shift from the totalitarian "command system" of the Stalinist age to a system of rule under Khrushchev and his successors, which appears somewhat more responsive to pluralistic pressures from below. However, the basic political assumption underlying this model has remained essentially unchanged, during the transition from the harsh autocracy of the Stalinist period to the less rigid oligarchic rule of the present collective leadership; to wit: An authoritarian leadership, with highly centralized machinery of planning and control at its disposal, is assumed to be in a position to make up its mind according to its own calculation of preferred policy alternatives, and to dictate its decisions to all subordinate echelons of party and state for implementation.

Thus, when viewed through the conceptual lenses of this model, the Soviet policymaking process is seen as the work of a fully informed, unitary leadership which bases its decisions on rationalized weighing of pros and cons, costs and gains, and which can be expected to make more or less purposive choices among a range of courses of action leading toward its preferred policy goals. In essence, this amounts to saying that the Soviet leadership is the master and not the captive of the overlapping bureaucracies over which it nominally presides, and that, within the parameters of opportunity and constraint which confront any government in the international arena, it will seek policy "solutions" best suited to serve its perceived interests.

I believe it is fair to say that the unitary, rationalized policymaking model sketched above tends to provide the standard frame of reference still employed either explicitly or implicitly by many who address themselves to the explanation and prediction of Soviet political behavior. However, this model has come to be challenged increasingly in recent years by Western scholars looking to the concepts of comparative systems analysis and the theory of complex organizations for other models better suited to interpret the processes of change, diversification, and interest-group politics at work within the formal structure of Soviet institutions. One finds, therefore, a new paradigm or model coming into use, which differs notably in some respects from its predecessor.

Perhaps the basic assumption upon which this contrasting model rests is that no single centralized leadership entity—even in a highly authoritarian or totalitarian system—has the time or information at

its disposal to make all of the important decisions for the system. Since the top leadership cannot master all the details and complexities of the issues with which it deals, it must depend on inputs of information and technical judgment flowing upward from subordinate organizations. These organizations in turn operate according to their own bureaucratic rules and procedures; they have their own institutional momentum, vested interests to protect, axes to grind, constituencies to please, traditional claims on the budget, commitments to programs already laid down, and so on. As centers of partial power in the system, the various bureaucracies have a claim to be heard: the way they marshal their arguments and the skill of their advocacy can help to structure the issues as they are presented to the top leadership, so that in a sense the policy options open to it are already somewhat circumscribed before they become a matter of decision.

Although the Soviet Government is not one of formal checks and balances, when viewed in terms of this model, the proliferation of power within a large and complex bureaucratic system like that in the Soviet Union may in some sense serve as a haphazard substitute for constitutional checks upon central authority. It tends to beget potential vetoes upon policy and may lead to immobilism in action, especially innovatory action that breaks with established ways of doing things. In effect, this model places the top leadership at the center of a bureaucratic process which may encumber response to new problems and situations as often as it facilitates their "solution," and it suggests that the policies which emerge from the process may represent something less than the product of optimum choice among a full array of alternatives. Even what appear to be high-level decisions, reached for the weightiest reasons of national interest, may sometimes represent the cumulative result of many smaller and often conflicting actions—as well as failures to act—at lower levels of the bureaucracy.

Besides emphasizing the effect of bureaucratic phenomena upon Soviet policymaking, this model also views the top leadership itself as far from a homogeneous group prepared to speak with a single voice on the issues which come before it. Rather, the ruling oligarchy is presumed to have many differing alignments of interest and ties with various competing pressure groups; it is seen to engage in internal political maneuvering and to strike committee compromises, which may tend to water down its decisions and often rob them of logical consistency.

Needless to say, one must be wary of attempts to fit actual observed Soviet behavior into any given abstract model, or to explain Soviet priorities and decision in terms of any single set of determinants—economic, strategic, ideological, historical, bureaucratic, and so on. Nevertheless, if the second of the foregoing illustrative models somewhat more closely approximates the shape of Soviet reality than the first—as I am inclined to believe is the case—then one may perhaps draw from it some helpful insights into the Soviet policymaking process. Specifically, I would offer the following observations:

1. The range of effective choices open to the Soviet leaders—whether they happen to be reform-minded, rather ebullient personalities like Khrushchev, or more plodding types tending to revert to neo-Stalinist orthodoxy like the present collective leadership group—

is probably more circumscribed by organizational phenomena than commonly supposed.

2. Strong pressures and tendencies to persist in familiar patterns of behavior and along established policy courses appear to be built into the system. This would suggest, among other things, that organizational claimants upon Soviet resources tend to acquire stakes in adopted programs and to resist dropping them even when they have outlived their original aim. It would also suggest that large shifts in the budget, especially in a downward direction, are not easily engineered, and even though the top leadership may so desire.

3. Substantial changes and innovation in policy seem more likely to occur when the system is confronted by major crises than when it is rocking along on a routine day-to-day basis. However, since a plentiful supply of crises—both internal and external—has seldom been lacking, the system seems to labor under more or less constant stress. The question therefore is: How well are its leaders apt to respond to recurrent challenges? What is the quality of its decisions likely to be?

4. Both models offer some basis for judgment, although—as the rather spotty record of attempts to predict Soviet behavior indicates—neither is a wholly satisfactory guide. The first tends to see Soviet decisions and actions directed toward realization of some logically explicable purpose or intention; the second implies that the interplay of elite politics and bureaucratic momentum may often have as much to do with the quality of decisions as logical calculation of costs and benefits. The bias of the first model is toward suggesting that challenges will be adequately met by the Soviet leaders—that they will tend to select a course of action from among available alternatives that will produce maximum benefits and minimum negative consequences, in terms of a logically consistent set of values and goals. The second model, on the other hand, implies that the Soviet leaders will tend to respond to threats or opportunities in ways to which they are accustomed from past experience and which are feasible in terms of available resources, organizational practices, and so on—which may or may not yield constructive solutions to the problems facing the Soviet Union in an age of pervasive change.

#### MILITARY POLICY AND SOVIET NATIONAL PRIORITIES

Against this general background, I would like in the time remaining at my disposal to speak more directly to the question of where military policy priorities stand in the Soviet scheme of things, and to certain matters of change and continuity in this field.

In part, at least, Soviet military policy has tended to reflect the evolving conceptions which have informed Soviet foreign policy under successive leaderships from Stalin to the present day. In Stalin's time, the Soviet Union pursued a foreign policy of essentially continental dimensions, and its military policy remained oriented largely in a continental direction. In the Khrushchev era, by contrast, the Soviet Union began to break out of its continental shell to assert its influence and interests in every quarter of the world. However, under Khrushchev, Soviet military power was never fully reshaped to support a political strategy of global dimensions. His successors, in effect, picked up this task where Khrushchev left it.

It would greatly oversimplify matters to say that the Brezhnev-Kosygin regime merely set out in systematic fashion to correct various shortcomings in the Soviet military posture to match it more precisely with a specified set of foreign policy objectives. Military power and foreign policy can seldom be kept neatly in phase; as my earlier remarks were intended to suggest, policies and programs in the Soviet case are conditioned by many circumstances, including the organizational habits of the bureaucracy; the bargaining interplay among various elite groups; the constraints of resources, technology, geography, and tradition; the pressures exerted on Soviet decisions by allies and adversaries, and so on.

Nevertheless, it would seem warranted to say that the general direction taken by Soviet military policy during the past 5 years derives from the regime's attempt to bring the Soviet Union's military posture into better line with its growing global obligations and interests.

This is not the place to go into the details of Soviet military developments during this period. One need only observe that under the Brezhnev-Kosygin regime the Soviet Union embarked upon a large-scale buildup of its strategic forces and pursued other military programs which have contributed to a notable shift in the American-Soviet strategic balance, and to the further transformation of the U.S.S.R. from an essentially continental military power into a more truly global one. It is germane, however, to note the governing assumptions upon which the military policy of the Brezhnev-Kosygin regime appears to have rested.

These would seem to be:

1. That general nuclear war must be avoided;
2. That deterrence based on Soviet strategic-nuclear power offers the best guarantee against nuclear war;
3. That the Soviet Union must maintain its traditionally strong continental military position, both to back up its interests in the crucial political arena of Europe and to cope with the problems created by the rise of a rival seat of Communist power in Peking; and
4. That the Soviet Union must also continue to develop more mobile and versatile conventional forces—including Soviet naval and maritime capacities—in order to support its interests in the third world and to sustain its role as a global competitor of the United States.

In essence, much the same set of desiderata underlay Khrushchev's military programs also. What has chiefly distinguished Soviet military preparations of the Brezhnev-Kosygin period from those of the Khrushchev decade, therefore, has been not their general direction, but their more impressive scale. Despite the high priority set by the incumbent leaders upon major investment programs and reforms to stimulate economic growth and performance, they have found it expedient to make successive annual increases in the military budget. Beginning with 12.8 billion rubles in 1965, the figure has mounted each year: 1966, 13.4; 1967, 14.5; 1968, 16.7; 1969, 17.7 billion rubles.

Mr. Chairman, I have expanded in a separate document on this point of the allocation of resources between military and other uses,

as well as a number of other questions upon which I won't go into detail here.

Chairman PROXMIRE. That separate document will be printed in the record following your remarks. (See p. 855.)

Mr. WOLFE. Thank you, sir.

I think this steady upward trend in Soviet military outlays represents a diversion of resources hardly calculated to help the regime meet its domestic economic goals. Naturally, the question arises: What has prompted Khrushchev's successors to increase the scale of Soviet military preparations? At the risk of violating my earlier caveats against relying on overly facile explanations of Soviet behavior, let me, in concluding, venture a few comments on this question.

In the first instance, the Brezhnev-Kosygin regime was probably moved to break through the ceiling Khrushchev had sought to maintain on Soviet military expenditures by the conviction that the U.S.S.R. must provide itself with a wider range of military options and divest itself of a markedly inferior strategic posture in future Soviet-United States confrontations that might occur—a liability that was dramatically driven home by the Cuban missile crisis in the latter days of the Khrushchev decade. Secondly, the war in Vietnam and an apparent Soviet belief that U.S. military power was being increasingly committed to the suppression of so-called national liberation movements in the third world probably served also to persuade the Brezhnev-Kosygin regime that further measures were needed to improve the Soviet Union's ability to project its military presence into areas like the Middle East, Africa, and the Indian Ocean, in support of Soviet policy.

But an explanation couched solely in terms of Soviet response to the perceived posture and policy of the United States falls short of the mark. The tendency of the Soviet leadership to seek resolution of its political dilemma in Czechoslovakia through military pressure—first in the form of threatened intervention and then by actual invasion—serves to remind us that problems like arresting the erosion of Moscow's authority in East Europe count high also in the pattern of Soviet priorities. Similarly, new difficulties with China in the Asian borderlands point to another source of motivation for the strengthening of Soviet arms.

In addition to such external grounds for a steady rise in military allocations, the internal play of Soviet elite politics, and especially the appetite of the military bureaucracy for a larger slice of resources, are factors which deserve close attention. In this connection, the likelihood that the Soviet military hierarchy under the Brezhnev-Kosygin regime has sought and obtained a more influential voice in decisions affecting the country's security should not be overlooked, although the outward evidence available does not—at least in my opinion—indicate that the traditional hold of the Soviet political leadership on the machinery of decisionmaking has been usurped by the military.

Finally, whatever the explanations advanced for the present scale of Soviet military outlays, I think it is also well to view the situation in broad historical perspective. Seen thus, the evolution of the Soviet military posture up to this point in time can perhaps best be understood as part of a larger historical process, still underway, marking the

Soviet Union's emergence as one of the world's two superpowers and reflecting the aspirations of its leaders to share the global stage with the United States.

(The supplement follows:)

#### SUPPLEMENTARY COMMENTS BY DR. THOMAS W. WOLFE

The remarks below are addressed to several questions treated only briefly or not covered at all in Dr. Wolfe's opening statement before the Subcommittee.

##### 1. HOW ARE NATIONAL PRIORITIES ESTABLISHED?

The Communist Party of the Soviet Union lays down broad guidelines and goals for domestic and foreign affairs through programmatic documents like the Party Program, resolutions and reports of Party Congresses and Central Committee plenums, and the like. The Politburo—supported by the Party Secretariat, the Central Committee professional staff and other organs of the Party apparatus—is nominally the locus of power where major priorities and decisions are arrived at, but policy actually emerges from a wider arena of decisionmaking involving both the Party and the government bureaucracies. Nominally, Party guidelines and instructions go to the government side of the house, where they are translated into plans, programs and decrees by the Council of Ministers and other government organs like Gosplan, the various Ministries, and so on, but in practice there is doubtless much feedback from these government agencies to the Party collective leadership. That is to say, *outputs* from the major bureaucracies (economic, defense, police, scientific, cultural, etc.)—in the form of problems, proposed programs, budget requests, manpower and organizational requirements and limitations, etc.—serve as *inputs* for top-level decisions and accordingly influence them in many ways.

##### 2. WHAT ARE THE RELATIONSHIPS OF VARIOUS GROUP INTERESTS REPRESENTED IN THE ESTABLISHMENT OF PRIORITIES?

The two major elements of the Soviet governing system in a formal sense are the Party on one side and the Government on the other (leaving out the Supreme Soviet, which is nominally the legislative but in reality a rubber-stamping element). Perhaps the first point to make is that the inner oligarchy which comprises the collective leadership represents an "interlocking directorate" controlling both Party and Government, for some of the men at the top of the structure wear two hats—occupying high Party and high Government posts at the same time. According to the setup established after the last Party Congress, the 23rd, in 1966, there were 19 places in the Politburo and 10 in the Secretariat. With overlapping assignments, 23 men occupied these 29 places; four of the same men hold top posts in the Council of Ministers on the Government side.

Historically, there has been some institutional tension between the Party and Government apparatuses, and in periods when the offices of First Secretary of the Party (now General Secretary) and Chairman of the Council of Ministers were not combined in the same person—as when Khrushchev and Malenkov respectively headed the Party and Government in 1953–1954—there was rather uneasy rivalry between the two. However, though the present collective arrangement is similar—with Brezhnev heading the Party chain of command and Kosygin the machinery of government and industry—the division of labor seems to have held up better, and there has been little indication of any open Party-Government rivalry that would pit Brezhnev and Kosygin directly against each other. Incidentally, it appears that after the ouster of Khrushchev in 1964, his collective successors agreed that no single leader should again occupy both top posts. Whether this will permanently solve the dilemma of potential conflict between the Party and Government machines remains to be seen.

Apart from the Party-Government relationship, there are of course numerous group alignments within the system that cut across Party-Government lines. Some of these groupings have an institutional or professional basis—Party *apparatchiki*, industrial managers, scientists, the military, the security police, and so on; and within such larger groups there are further interest-group divisions, as in the military, for example, where one may find differing interest-alignments among the services, between the professional officer corps and

political officers, between a new class of military technicians and traditional line officers, and so on. Another type of alignment within the Soviet leadership, on the basis of what might be called philosophic outlook, also probably exists, though attempts to classify such internal factions in terms of hard-soft, hawk-dove, conservative-liberal, dogmatist-pragmatist or similar polarized groupings have not been too successful.

In general, the historical tendency of the Soviet system itself has been to try to suppress the emergence of autonomous interest groups of any kind that might develop a life of their own and challenge the leadership monopoly of the Party, but nevertheless a kind of creeping pluralism seems to have spread as various institutional and interest groups gradually found more elbow room within the system after Stalin's demise. Khrushchev's reforms and de-Stalinization campaign gave impetus to this process; his successors seem to be trying to turn the clock back to stricter conformity, but their ability to reimpose Stalinism in its earlier form in the face of societal change remains to be seen.

The practical question, I suppose, is how much influence can be brought to bear on Soviet policymaking by interest groups of one kind or another. Unfortunately, efforts to measure the relative weight of particular interest group combinations as well as public opinion in general upon Soviet decisions can not be said to have yielded very precise results, though I don't want to belittle such attempts. After all, it is not easy to establish and weigh pressure-group influence in our own society, where access to relevant data is far easier than in the Soviet case.

To conclude, I think most students of Soviet affairs would subscribe to the view that even though precise identification of various interest-group alignments and syndromes can not be made, nor the weight of their influence accurately measured, important Soviet policy decisions under the Brezhnev-Kosygin regime probably have tended to represent a kind of "committee compromise" among contending preferences and factions within the ruling oligarchy—which in turn reflect to some degree feedback from various interest-groups in the society.

### 3. MILITARY INFLUENCE ON SOVIET POLICY

Widespread speculation has been heard, especially since the invasion of Czechoslovakia, that the Soviet military leaders have acquired unprecedented influence in the policy councils of the incumbent regime. Some Western observers, in fact, have argued that there has been a major shift of political power to the Soviet marshals. Although, as my preceding comments on pressure-group alignments indicate, I doubt that the kinds of evidence available permit any sweeping conclusions on this matter, it may be useful to examine some of the evidence and to offer my own appraisal of its significance.

There is a long history of recurrent tension in the Soviet Union between the civilian Party leadership and the professional military. Stalin's purge of Marshal Tukachevskii and most of the military high command in 1937, his later postwar demotion of Marshal Zhukov, and Khrushchev's troubled relations with various marshals, including Zhukov, whom he dismissed in 1957—are but some of the better-known symptoms of a rivalry between Party and military leaders which historically has always seen the latter put in their place.

For present purposes, one may begin by saying that the problems of political-military relations under the Brezhnev-Kosygin regime appear to have fallen in three broad categories: (1) the problems of maintaining political control over the armed forces in time of crisis and amidst the hazards which a nuclear-missile world may hold; (2) those of meshing economic and military planning to cope most effectively with the resource-consuming appetite of modern weapon systems; and, (3) those of balancing military influence on Soviet policy formulation against the need of political authorities to call increasingly upon the professional expertise of the military leadership.

With regard to the first category of problems—about which little need be said here—there has been a lively professional discussion in the Soviet Union during the past few years which carries overtones of disagreement over existence arrangements for command and control of the armed forces. Part of this discussion has dealt primarily with the technical aspects of improving command and control under nuclear-age conditions.<sup>1</sup> But the question of the proper politi-

<sup>1</sup> See Colonel S. Tushkevich, "The Modern Revolution in Military Affairs: Its Sources and Character," *Kommunist Vooruzhennykh Sil*, No. 20, October 1966, pp. 22-23; N. Ia. Sushko and T. R. Kondratkov, eds., *Metodologicheskie problemy voennoi teorii i praktiki*, Voenizdat, Moscow, 1966, pp. 69, 243-265, 279.

cal-military relationship at top levels of decision also has entered the picture. A considerable amount of attention has been given, for example, to the need for creating in peacetime the "necessary politico-military organs" to insure coordinated leadership of the country in emergencies, taking cognizance of the fact that "modern weapons are such that the political leadership cannot let them escape its control."<sup>2</sup> Implicit in the commentaries of Soviet military men on this subject is the suggestion that while they do not question the ultimate authority of the political leaders, they do worry that the latter may be prone to indecision in emergencies. Thus, military men like Marshal Grechko have cited lessons drawn from mistakes committed by the top leadership prior to and in the initial stages of World War II to make the point that under modern nuclear-age conditions the leadership's "correct and timely evaluation of the situation prior to a war, and the reaching of initial decisions" have taken on greatly increased significance.<sup>3</sup>

The second category of problems, arising around the recognized importance of tying together more effectively the economy on the one hand and the planning and procurement of weapons for the armed forces on the other, has been frequently aired in the past few years against the background of civil-military competition for resources. Early in the Brezhnev-Kosygin period, the issue of economic-versus-defense priorities had been raised in the military press with a series of theoretical articles arguing that one-sided emphasis on war-deterrence, as practiced under Khrushchev, could lead to neglect of all-round strengthening of the armed forces and to questioning of "the need to spend large resources on them."<sup>4</sup> Later, after top Party leaders had publicly declared that "aggravation of the world situation" precluded "a substantial reduction in military expenditures"<sup>5</sup> and gave their sanction to increases in the defense budget, the professional military press began to devote an unusual amount of attention to the need for a coordinated "military-economic policy" to insure "correct and effective use of resources" and the "solution of all military-economic tasks."<sup>6</sup>

In general, military spokesmen conceded that strict Party control of the "complex tasks" of coordinating civilian and military production was necessary,<sup>7</sup> but there were also reservations as to the wisdom of allowing economic criteria to outweigh military requirements. One writer, for example, taking note of concern about the increasing cost and complexity of modern weapon systems, observed that it was essential to make optimum use of resources, but argued that in the last analysis the maintenance of technical-military superiority required that the quality of advanced weapon systems and not their cost should be "the governing consideration."<sup>8</sup>

Another indication that the issue of civil-military competition for resources was being contested within the regime came following the death of Marshal Malinovskii, the Defense Minister, in March 1967. At that time, there was a spate of rumors in Moscow that his successor might be Dmitri Ustinov, a Party civilian with a long career in the management of defense industry, suggesting internal pressure for restructuring of the traditional Defense Ministry organization along more civilian-oriented lines. Had Ustinov taken over the post customarily occupied by a military professional with command prerogatives over the armed forces, it seems likely that rather sweeping organizational changes would have followed, perhaps with the effect of reducing the influence of professional military men on resource decisions. As it turned out, however, the regime shied away from such a radical step, if it had in fact seriously contemplated it, and after a brief delay Marshal Grechko was appointed Defense Minister, leaving undisturbed the position of the military professionals in the defense hierarchy.

<sup>2</sup> See Major General V. Zemskov, "For the Theoretical Seminar: An Important Factor for Victory in War," *Krasnaia zvezda*, January 5, 1967; Colonel I. Grudinin, "The Question of the Essence of War," *ibid.*, July 21, 1966.

<sup>3</sup> Marshal A. A. Grechko, "25 Years Ago," *Voенно-istoricheskiĭ zhurnal*, No. 6, June 1966, pp. 10, 15.

<sup>4</sup> See, for example, Colonel I. Sidel'nikov, "V. I. Lenin on the Class Approach to Defining the Character of War," *Krasnaia zvezda*, September 1965.

<sup>5</sup> Kosygin speech at the 23rd Party Congress, *Pravda*, April 6, 1966.

<sup>6</sup> Colonel A. Babin, "The Party—Leader of the USSR Armed Forces," *Krasnaia zvezda*, April 6, 1967; Colonel Ia. Vlasevich, "Modern War and the Economy," *Kommunist Vooruzhennykh Sil*, No. 12, June 1967, pp. 27-33.

<sup>7</sup> Babin in *Krasnaia zvezda*, April 6, 1967.

<sup>8</sup> Major General M. Cherednichenko, "Economics and Military—Technical Policy," *Kommunist Vooruzhennykh Sil*, No. 15, August 1968, pp. 11-13.



With regard to the third category of issues in the relationship between civilian and military leaders—those pertaining to the “permissible” share of military participation in the highest policymaking councils of the regime—there has been a wide variety of evidence to suggest both a more assertive bid by the military hierarchy for a large voice in decisions affecting the country’s security and a countering response from the political leadership aimed at reaffirming the principle of Party dominance. This has not, however, been a simple matter of drawing up sides between the political leadership and the military, but rather a complex affair in which the Party has been able to summon advocates for its view at will from within the military establishment and the latter in turn apparently has found allies within the political side of the house. Neither the manner in which this internal sparring over the respective roles of the Party and the professional military has been carried out can be traced in detail, nor can its outcome be predicted.

Some of the evidence in question goes back to a thinly-disguised debate which arose in 1966-1967 over what had been a familiar issue in Khrushchev’s day between proponents of a larger military share in the formulation of military doctrine and strategy and defenders of the principle of Party supremacy in all aspects of military affairs. The late Marshal Sokolovskii, an eminent spokesman during the Khrushchev era for more professional military influence upon the strategic planning process, was one of those who again pressed this viewpoint. By way of getting across the point that strategic planning in the nuclear age demands a high level of military expertise, Sokolovskii in April 1966 cited the American case, where, according to him, “direct leadership” of the top strategic planning body, the National Security Council, was “exercised by a committee of the Joint Chiefs of Staff,” even though its nominal head was the President.<sup>9</sup>

The other side of the argument was also emphatically restated. Following a Central Committee plenum which met in closed session in December 1966 to deal with the question, a series of forceful reminders of the Party’s supremacy in military affairs appeared in the Soviet press. Among the most trenchant of these was a previously-mentioned article in early January 1967 by Major General Zemskov, who stated that solution of the complex tasks of modern war involving great coalitions and the energies of whole societies “falls completely within the competence of the political leadership.”<sup>10</sup> Although the Zemskov article rebutted Sokolovskii’s contention that military professionals should have greater access to the top level of strategic planning, it also pointed out that there was need in the Soviet Union for peacetime creation of a single “supreme military-political organ” through which the political leadership would exercise its role. This apparent admission that the Soviet Union lacked adequate institutional arrangements to effect top-level coordination between political and military leadership was rather puzzling. In Khrushchev’s day, the Higher Military Council—chaired by Khrushchev and seating the country’s principal political and military leaders—had apparently performed this function.<sup>11</sup> If it had been disbanded, the reason may have been because the collective leaders were wary of allowing any one man among them to wield the power which chairmanship of such a body could bestow. But at the least, whatever arrangements had been made after Khrushchev’s ouster, the curious dialogue over the need for a “supreme military-political organ” seemed to suggest that the question of military access to the apex of political-military policymaking was a vexed one.

A second supply of evidence on the position of the Soviet military leadership vis-a-vis the political leadership is somewhat less ambiguous than that noted above. It stems from events and Soviet activities in connection with the Czechoslovak crisis in 1968. The tendency of the Soviet leadership to seek resolution of its political dilemma in Czechoslovakia through military pressure—first in the form of field exercises and threatened intervention and finally by

<sup>9</sup> Marshal V. D. Sokolovskii and Major General M. Cherednichenko. “On Modern Military Strategy.” *Kommunist Vooruzhennykh Sil*, No. 7, April 1966, pp. 62-63. Needless to point out, Sokolovskii’s polemical interpretation of the operation of the NSC was not accurate.

<sup>10</sup> *Krasnaia zvezda*, January 5, 1967.

<sup>11</sup> The Higher Military Council referred to here, also sometimes described as the Supreme or Main Military Council, was a body distinct from the system of Military Councils found within the country’s military structure at various command levels. For background discussion of this institution, see Thomas W. Wolfe, *The Soviet Military Scene: Institutional and Defense Policy Considerations*, The RAND Corporation, RM-4913-PR, June 1966, pp. 11-12. See also Roman Kolkowicz, *The Soviet Military and the Communist Party*, Princeton University Press, 1967, pp. 58-77, 124-143.

actual invasion—raised anew the question of military influence both upon high policy decisions in the Kremlin and upon their implementation.

There seems to be little ground for doubting that the Czech episode enhanced the prestige of the Soviet marshals and increased the Party leadership's dependence on them. Not only did the military professionals play the major instrumental role in the well-executed military phase of the invasion, but owing to the inept handling of the political aspects of the intervention by Soviet political authorities, military men were thrust almost by default into a combined military-political role as the only effective representatives of Soviet power in Czechoslovakia during the early days of the confused post-invasion period. The subsequent military occupation upon which enforcement of the Soviet writ in Czechoslovakia largely depended also undoubtedly boosted the internal leverage of the Soviet marshals within the Brezhnev-Kosygin regime. Furthermore, when anti-Soviet demonstrations broke out in Czechoslovakia in early 1969 after a Czech ice-hockey victory over a Soviet team, and the threat of new repressive measures was needed, an active role again developed upon military leaders as the executors of Moscow's East European policy. Marshal Grechko's preemptory visit to Czechoslovakia at this time as the Kremlin's chief trouble-shooter was widely regarded as proof of the new ascendancy of the Soviet military leadership, and many Western observers credited Grechko on this occasion with having succeeded where Soviet political leaders had failed in forcing Dubcek out of office and returning pro-Moscow conservatives to power in Prague.

While the Brezhnev-Kosygin regime's debt to the Soviet military leadership thus clearly grew in connection with the Czechoslovak affairs, this did not necessarily mean, however, that the marshals had succeeded in translating their traditional advisory role and their enhanced instrumental position into fully potent political power within the Kremlin. Indeed, there was other evidence which seemed to point to a continuing internal controversy of sorts between Soviet political and military leadership elements, in which not only symbolic gestures to reduce the prestige of the military a notch or two were involved, but in which a number of military spokesmen seemed to be critical of the political leadership on issues related to the country's military posture and its stance toward strategic arms talks.

The 1969 May Day celebration in Red Square provided an example of what appeared to be a symbolic reminder of the primacy of the political leadership. At the last moment, under circumstances which are still obscure, the traditional parade of military formations through Red Square on this occasion was cancelled, while for the first time in the Soviet era the Minister of Defense was denied the honor of making the speech of the day. However, an impressive cluster of Soviet marshals on the reviewing stand, some paces from the front phalanx of Politburo dignitaries, seemed also a symbolic way of indicating that the military remained an important part of the picture.

Signs of military dissatisfaction with, and perhaps resistance to the political leadership's attitude on matters of military policy and the strategic arms talks, took several forms in the latter months of 1968 and early 1969. One was editorial tampering in the military press with some government statements on arms control policy, which had the effect of censoring out expressions of Soviet readiness to negotiate with the United States on strategic arms limitations.<sup>12</sup> A second line of military sniping at the political leadership's judgment was pursued by several relatively junior military theorists who may have enjoyed discreet encouragement from higher-placed sympathizers in both military and political circles.

Among these writers was Lt. Colonel V. Bondarenko, over whose name a highly-polemical article was published in December 1968 in the twice-monthly journal of the Main Political Administration of the Armed Forces. The Bondarenko article was notable not only for its forceful statement of the thesis that the Soviet Union must pursue the race for military-technical superiority which has "its own logic of development," but also for its blunt assertion that "political organizations and their leaders" might "fail to use the emerging possibilities" offered by the "revolution in military affairs."<sup>13</sup> Coming at a time when strategic arms

<sup>12</sup> See, for example, Matthew P. Gallagher, "Red Army's Arms Lobby," *The Washington Post*, February 9, 1969.

<sup>13</sup> "The Contemporary Revolution in Military Affairs and the Combat Readiness of the Armed Forces," *Kommunist Vooruzhennykh Sil*, No. 24, December 1968, especially pp. 24-29.

talks with the United States were pending, this article appeared to put the Soviet political leadership (or, at least, some elements within it) on warning not to entertain agreements that the military deemed prejudicial to the defense of the country. In addition to the Bondarenko article, there were other thinly-veiled warnings from military writers against utopian "illusions" that one can eliminate the danger of war and achieve security through disarmament agreements.<sup>14</sup>

A third line was taken up in early 1969 in a series of articles devoted to Lenin's thinking on war and military affairs. These articles, most of which appeared in major military publications and some of which were authored by prominent military figures, uniformly stressed Lenin's teaching that "imperialism" would remain implacably hostile to the Soviet state and that the chances of a war to restore the capitalist system would continue to exist until the historical transition from capitalism to communism throughout the world was complete.<sup>15</sup> Given the insistence in these articles that the threat from imperialism permitted no slacking of priority for Soviet defenses, it could be surmised that their authors also were taking part in a concerted campaign for maintaining a high level of Soviet military preparations, and, by implication, against relying on arms control negotiations for Soviet security. Rather curiously, despite the heightened awareness of new friction with China growing out of the Ussuri River clashes in March 1969, none of these authors chose to invoke a potential Chinese military threat as the rationale for strengthening Soviet military preparedness—although it seems highly probable that Sino-Soviet discord has in fact become an increasingly important consideration in Soviet military planning.

The upshot of the various developments sketched above seems to be that the Soviet military leadership—as a pressure group operating within the Soviet ruling elite—has acquired greater prestige and influence during the Brezhnev-Kosygin period of collective leadership than it enjoyed during the Khrushchev decade. It also seems clear that beneath the surface of relatively harmonious relations between civilian Party authorities and the military there are various intractable issues which generate continuing internal controversy and tension. The likelihood that the political leadership itself does not see eye to eye on some of the matters at issue—economic-versus-military priorities, posture toward the United States, arms control negotiations, and so on—undoubtedly complicates the situation and probably produces opportunities for the military to make its weight felt in the inner politics of the Kremlin.

Beyond this, however, the evidence hardly supports the proposition that Soviet marshals have successfully challenged the ultimate authority and policy-making prerogatives of the Party leadership, or that they even aspire to do so. The fact that no military man has been taken into the Politburo—where Zhukov was the only military professional in recent times to gain entry—seems to testify to the continuing formal subordination of the Soviet military. So far as the evidence permits one to judge at this time, therefore, the Soviet political leadership still appears to enjoy the last word, as was the case during the first half-century history.

#### 4. TRENDS IN ALLOCATION OF RESOURCES—PROSPECT OF SHIFTS

The allocation of resources undoubtedly continues to be one of the more perplexing problems on the Soviet leadership's economic agenda. Three pressing sets of requirements compete for priority: (1) the satisfaction of consumer needs; (2) the military and defense industry claims; (3) over-all economic growth.

In allocating resources, the regime must decide what tradeoffs to make among these three major categories of requirements. The more it directs resources toward the first two, the less remains for investment in the third. And obviously, failure to promote a high rate of economic growth, in turn, could jeopardize the attainment of the economic goals set for the current Five-Year-Plan period ending in 1970, as well as beyond.

The difficulty of adjusting these conflicting priorities is doubtless among the factors that account for the curious omission of any formal ratification of a "final version" of the current Five-Year-Plan. Similarly, an inability to resolve

<sup>14</sup> See, for example, review article by Colonel E. Rybkin, "Critique of Bourgeois Conceptions of War and Peace," *Kommunist Vooruzhennykh Sil*, No. 18, September 1968, pp. 89-90.

<sup>15</sup> Among the authors were: Marshal A. A. Grechko, in *Kommunist*, No. 3, February 1969; General A. Epishev, *ibid.*, No. 6, April 1969; Major General K. S. Bochkarev, in *Morskoi sbornik*, No. 2, February 1969; Colonel M. Vetrov, in *Voenna-istoricheskii zhurnal*, No. 3, March 1969; A. Galitsan, *ibid.*

economic priorities in the face of competing claims on resources and the uncertainties of the international situation seems to be reflected in failure to promulgate the main outlines of the next Five-Year Plan (the ninth, for the period 1971-1975)—even though the Plan's outlines were supposed to have been completed by August 1968.

Turning now to actual trends in allocation for the past few years, what do we see? Basically, the regime seems to have put priority upon responding to long-neglected consumer demands and upon strengthening the Soviet military posture—at the expense of hoped-for high rates of growth-oriented investment.

A shift in priority with regard to consumer goods was first announced at a Supreme Soviet session in October 1967, when it was made known that the percentage increase in production of consumer goods for 1968 would be slightly greater than that of producer goods—8.6% compared with 7.9%. Even though in absolute terms producer-goods production remained favored by a large margin (for example, planned goals for 1970 still came to 250 billion rubles of output for producer goods compared with 100 billion for consumer goods), nevertheless this was the first time in Soviet history that the growth rate for consumer goods exceeded that for producer goods. This notable reversal of a traditional priority was attributed in part by Western observers to inflationary pressure created by the fact that incomes were rising at a faster rate than the supply of consumer goods. Again in the economic plan for 1969, the consumer category retains a slight edge in growth rate of 7.5% over 7.2% for producers-goods output.

These concessions to consumer expectations, meanwhile, were accompanied by a continuing upward trend in military allocations in both 1968 and 1969. In 1968, for example, there was a 15% increase in defense allocations, and the possibility of an even larger boost in military expenditure was suggested by expansion of the "unattributed" residual in the state budget, much of which is generally believed to cover unannounced defense outlays. (This residual increased to 9.4 billion rubles in 1968, compared with 5.3 billion in 1967). The persistence with which a high priority for military expenditures has been sustained in the allocation pattern under the Brezhnev-Kosygin regime is illustrated by the figures below:

Year	Announced military budget (billions of rubles)	Percent of total state budget
1965	12.8	12.6
1966	13.4	12.7
1967	14.5	13.2
1968	16.7	13.5
1969	17.7	13.2

With regard to investment for long-term economic growth, the trends of the past few years show consistent slippage behind planned rates. This first became apparent with the announcement of a readjustment of the Five-Year-Plan priorities in October 1967, when projected over-all investment growth for the 1966-1970 period was lowered from 47% to 43%. Investment shortfalls, combined with such factors as a sluggish rate of growth in labor productivity, introduction of a five-day work week and lagging retirement of obsolete plant equipment, evidently contributed to a decline in the industrial output growth rate in 1968. (It fell to 8.3%, later amended downward to 8.1% for 1968, compared with a claimed growth rate of about 10% for 1967.) In agriculture, investment also slipped, lagging in 1968 about 10% behind the planned rate; paradoxically, this may have been due in part to the good harvest of 1966, which, according to Dmitri Polianskii, the Party leader in charge of agriculture, had "gone to the heads of some comrades" and prompted them to believe that agricultural investment should be cut back to permit diverting resources to other claimants. These comrades evidently had their way, as indicated not only by the 1968 lag in state investment in agriculture, but also by the fact that agricultural investment for the first three years of the current Five-Year-Plan fell 4.4 billion rubles short of the 21.2 billion which Brezhnev in 1965 had said was intended for the period.

Another aspect of the investment picture suggesting that earlier priorities had gone awry was the distortion which showed up between centralized and local investment. The former, intended to insure centralized control of resources for

major national projects, was originally scheduled by the Brezhnev-Kosygin regime to comprise the bulk of total planned investment. In practice, however, partly due to the decentralizing features of the economic reform program, local investment tended to increase more rapidly than planned. Thus, for example, though centralized investment in 1968 came to 43 billion rubles, local investment proliferated to 18.5 billion, constituting a somewhat larger proportion of total investment than planned, and presumably diverting some resources from higher national priorities.

What the prospects may be for any substantial shift in the basic pattern of allocation priorities discussed above, it is difficult to say. The 1969 planning figures announced in December 1968 foreshadowed no major new directions in the short term, leaving one to assume that only incremental changes in existing priorities are to be expected. Perhaps the principal exception concerns the investment sector, where plans for 1969 call for correcting the imbalance between centralized and local investment. (Total investment, for example, is scheduled to rise from 61.5 billion rubles in 1968 to 65.2 billion in 1969, while centralized investment goes up from 43 billion to 46.6—figures which suggest that the entire increase of slightly more than 3.5 billion rubles is to be reserved for the centralized sector.) However, although this adjustment within the investment category reflects concern to channel available investment resources more effectively toward national economic-growth projects, it does not betoken a major departure from the over-all pattern of priorities.

Chairman PROXMIRE. Thank you, Mr. Wolfe.

In the closing part of your remarks you make an alarming conclusion. You say that "the traditional hold of the Soviet political leadership on the machinery of decisionmaking has been usurped by the military."

Let me see if I can ask you a specific question on that.

Mr. WOLFE. Senator, let me check the text. That was not my intention. The text reads:

The evidence available does *not* . . . indicate . . .

Chairman PROXMIRE. I feel better. That was called to my attention by the staff. I apparently wasn't alone in my interpreting that conclusion.

Let me ask you in that connection: Some observers of the Soviet Union have concluded that at least partial deployment of an ABM, and possibly the testing of MIRV's of which we aren't very certain, indicate that the Soviet Union is striving for a first-strike capability. Do you interpret the Soviet Union's current defense posture as indicating that they are striving for a first strike?

Mr. WOLFE. I personally do not interpret it this way. However, let me say that I think the evidence that is available lends itself to several kinds of interpretations. The Soviet targeting doctrine is quite ambiguous; for example, as to whether the Soviet Union has in mind a preemptive attack which would be tantamount to first-strike attack or not, it is quite ambivalent on this point.

Likewise, the characterization of some of the systems they have been building, as the public discourse on this matter indicates—the case, for example, of FOBS, which has no rational explanation other than for use against soft targets in a very minimal warning mode—these things also lend themselves to this sort of interpretation.

If I may advert to my earlier remarks, I think it may also be a mistake to always look for an essentially rational tie between each action and whatever its antecedent causes were. It is quite possible that there may be bureaucratic interests and commitments involved to programs

of this kind which have no particular bearing on a particular targeting philosophy at all, either first strike or retaliatory strike, but simply represent the vested interests of a group of designers and others who have committed themselves to this program and who are carrying it out.

I am not in a position, and I don't think anyone else is, to document this kind of speculation in great detail, the information is just not available.

Chairman PROXMIRE. Given the resources and productive capability of the Soviet Union, are they capable of developing a first strike within the next year or so, an effective first strike against this Nation, in your view?

Mr. WOLFE. I certainly would not feel they would be within anything like the next year or so, given the present balance of forces on both sides. Over the course of the next decade I would hesitate to predict what the outcome of an unrestricted military competition might be. I think if it were to be unrestricted, if both sides were to go all out, as it were, perhaps our superior resources would enable us to come out at the top. But in my judgment I don't think our society is disposed to use its resources in this fashion for an all-out and unrestricted arms competition.

Chairman PROXMIRE. Your conclusion is that within the next decade or so conceivably they could develop an effective first strike with which they could demolish our capability for retaliation?

Mr. WOLFE. Yes, sir.

Chairman PROXMIRE. Now, in testimony heard before this subcommittee several weeks ago former Budget Director Charles Schultze argued that U.S. support of an ABM and MIRV simultaneously could be interpreted by the Soviet Union as our going for a first-strike capability. How do you appraise this assertion?

Mr. WOLFE. I think there is a little bit too much mirror image in Mr. Schultze's assertion. I don't believe the Soviet Union is particularly concerned about U.S. deployment of a modest ABM system. I think if the United States began to deploy a very large ABM system the Soviet Union would begin to have some concerns of this kind. In my view—and I must say this is based not only on my understanding of Soviet doctrine and professional publications, but on a number of extended conversations with Soviet representatives on this very subject—the Soviet Union would tend to be surprised if we didn't show some interest in an ABM system.

Chairman PROXMIRE. You just told me that you don't, as I understand you—perhaps I misunderstood you—but I understood you to say that they could very well within the next decade develop a first-strike capability. We have to be alert to that and prepared for it and presumably react to it. Why shouldn't they view any action of this kind on our part the same way?

Mr. WOLFE. As I understood the Senator's question, it was Soviet reaction to ABM.

Chairman PROXMIRE. ABM and MIRV, both.

Mr. WOLFE. I am sorry. I was concentrating my answer on the ABM portion of your statement. And I don't think in the Soviet case that there is a great concern with ABM standing by itself. Now, if the United States—

Chairman PROXMIRE. We have been testing MIRV's, haven't we?

Mr. WOLFE. Yes, we have begun to test them. And the Soviet Union has its own program for multiple reentry vehicles.

Let me make one point clear. I am not an advocate of ABM. My public pronouncements before have put me in the position of deploring the tendency to go in this direction. But I would also like to say as a witness, a so-called expert witness on Soviet attitudes, that I do find it a little discomfoting to find people who occupy essentially the same position on ABM employing an interpretation of Soviet views and Soviet reactions which I don't think accords with the way the Soviets are likely to react, at least in my limited knowledge of how the Soviets view these questions.

Thank you for the opportunity of making this little excursion.

Chairman PROXMIRE. I got the distinct impression from all of you gentlemen—perhaps I am being unfair to one of you and perhaps not—that you feel that what the Soviet does with regard to their military effort, their military budget, depends to a considerable extent upon what we do; if we build our nuclear power they will retaliate, and if we do not, on the basis of our historical experience, they seem willing to relax as we relax. Is this a misstatement of the view of any of you gentlemen?

Not that it is inevitable, but on the basis of historical experience this has been the pattern.

Mr. FAINSDOD. Well, if I may just interject, I think this has been the historical pattern. But I would also assume that at the level of R. & D. they are seeking, as I suppose everyone else is seeking, for breakthroughs of one kind or another, in the hope that they can achieve something which will be an improvement over the existing relationship.

But, by and large, it seems to me that as one studies the evolution of Soviet military expenditures it can largely be explained in terms of the action—reaction pattern.

Mr. INKELES. I think I would share that sentiment.

Mr. WOLFE. I guess I will be the dissenter here again, on the same ground that I took before: that I think the attempt to make this kind of a generalization carries the evidence much too far. There are as many cases in which the Soviet Union has been the initiator of particular weapons systems that the United States has not chosen for one reason or another to go into. Let me mention three major ones just offhand. One of them is FOBS, one of them is very large megatons weapons which we have never chosen to exploit. And another is the land-based mobile intercontinental missile. There are three major systems that the Soviet Union has decided—

Chairman PROXMIRE. That might not be consistent with the position taken by Professors Fainsod and Inkeles. It is possible that they might go into other weapons systems and take the initiative in doing so just as we go into other systems that they don't, building aircraft carriers, for instance, and do other things that they don't. I don't see why the notion that they are building new weapons systems necessarily means that they are taking an overall initiative. The statistic that sticks in my mind is the period in 1964-65, or 1963-64, when they reduced their military budget partly in response to an apparent relaxa-

tion of U.S.-U.S.S.R. relations. Now, it may be at that very time they were building new weapons systems. But their overall investment commitment to their military budget apparently was being reduced.

I would like to ask Professor Fainsod this: Professor, you referred to Soviet politics as "bureaucratic politics," and that one of the primary concerns of the party leadership is that of mediating and balancing the claims of the various groups making up the bureaucracy. Under the present leadership the military appear to have the upper hand, or at least more dominance than they have had in some recent periods. You know they are under heavy pressure to devote more research to domestic problems. Do you see any signs that this pressure for domestic commitment is growing, or can the leadership continue indefinitely to be subjected to military demands?

MR. FAINSOD. I think there are limits. If the leadership is prepared to turn to the kind of patterns that Stalin used, I am sure that it can put a much greater squeeze on the people in terms of standards-of-living sacrifices. But I think in the present state of development of the Soviet economy this kind of pressure has become counterproductive, that essentially the case for using economic incentives rather than mass terror is a kind of production case. If, of course, the leadership feels itself in very great danger, I have no doubt that it would not hesitate to use very repressive means. But if it sees its future in terms of increases in productive strength, whether it be on the military or nonmilitary side, it seems to me it must and has turned increasingly toward the use of incentives as a way of evoking contributions to productivity.

So that in this sense the groups of which I spoke, and even just ordinary workers, ordinary farmers, are in a position to affect priorities to a degree which they weren't able to affect them before.

Now, this doesn't mean that the leadership is at the mercy of this environmental group activity. It can make calculated concessions of a rather modest sort. And I think on the whole its concessions can be so described. And when it feels under pressure to increase its military budget as it has in these last few years, something has to give. And if you study what has been happening you will notice that what has been giving has been investments in agriculture. And this has been openly acknowledged by Brezhnev in a recent statement. And indeed there have been pleas on the part of some party figures like Polianskii who have a special responsibility for agriculture for increased allocations. Such information as we have indicates that the Soviet Union probably faces a pretty poor harvest this year as a result of bad winter weather and a good deal of damage to the winter wheat crop. So that there may be pressure from that direction generated by natural developments as well as bureaucratic developments.

But one of the things that has happened is a cutback on investments in the agriculture sector, which I assume is in part a response to priority pressures from military and other areas.

Chairman PROXMIRE. My time is up. I will be back.

Senator Jordan?

Senator JORDAN. I should like to ask a general question and call for a volunteer to answer it.



What percent of the gross national product of Russia is now dedicated to defense expenditures?

Mr. FAINSOD. I believe you will have more competent testimony on this subject tomorrow when you have the economists appearing before you. And I suspect there are some disagreements even among them. At the best, it is informed guesswork or informed speculation. But in looking at the testimony of Professor Hunter, who will appear before you tomorrow, I notice that in his table 2 he makes certain estimates in percentage terms. And the estimate for the 1969 year is 9.5 for defense. And the figure as he defines them have been running—if I start with 1965—9.0, 8.8, 8.9, and 9.6, and now 9.5.

Senator JORDAN. Thank you. I didn't realize—

Chairman PROXMIRE. Will the Senator yield at that point?

Senator JORDAN. Yes.

Chairman PROXMIRE. Does that include the hidden items as well?

Mr. FAINSOD. I think this is a question that would best be addressed to Professor Hunter.

Senator JORDAN. I shall get on to a discussion of attitudes rather than economics, since this is a special field of expertise in which you gentlemen appear this morning.

Dr. Wolfe, in your statement you say that "under the Brezhnev-Kosygin regime the Soviet Union embarked upon a large-scale buildup of its strategic forces and pursued other military programs which have contributed to a notable shift in the American-Soviet strategic balance, and to the further transformation of the U.S.S.R. from an essentially continental military power into a more truly global one."

Taking the last part of your statement first, how do we account for the Cuban adventure of 1962? Was not that a global venture for the Russians?

Mr. WOLFE. Yes; I think in one sense it certainly was geographically a global venture. I think perhaps some of the political aims of the venture in Cuba were probably continental.

In my view one of the primary targets of the Cuban adventure was Berlin, and an attempt by the Soviet Union to bring a kind of pressure to bear on political problems in Europe as well as in this hemisphere. But I see this whole episode as part of a larger historical process by which the Soviet Union has gradually become more involved in the affairs of the world than it used to be.

Senator JORDAN. Do you think the U.S. response to this arms buildup in terms of a vastly increased military capability has been a reasonable response?

Mr. WOLFE. I think the debate in the United States at the moment is precisely over what the response should be to the Soviet buildup. I think there is a traditional lag, and of necessity there is a debate in a society like ours on large questions like this. And what it seems to me is very much at issue in our public debate and discourse today is: How should we respond to this change in the historical situation we have been accustomed to, a change which means that the Soviet Union, while not yet in strictly power terms on a par with the United States, is certainly moving closer in that direction?

Senator JORDAN. Do you think that this strategic balance has shifted rapidly toward an equality of arms between the Soviet and the United States? Is that the trend?

Mr. WOLFE. I think the trend since roughly 1966 has been for a rapid shift in the land-based elements of Soviet strategic delivery power. I don't think we need to recite the figures here. But so far as I recall, the last ones in the public domain were that the Soviet Union had built up to the present moment some 1,200 land-based ICBM launchers which, as one knows, is a slightly larger force than that the United States had long ago programed and built in about 1965-66. This does represent, however one wants to interpret its political consequences, a shift in the established accustomed balance of strategic military power. And similarly in other areas which I don't go into detail about in this paper there have been shifts of some consequence, particularly in naval forces.

Senator JORDAN. Professor Fainsod, when Walter Reuther appeared before this committee last week or perhaps 2 weeks ago, he said, "I personally think the Soviet Union desperately needs a desescalation in the arms race because they can't meet the new pressures."

It was his opinion that there is substantial pressure in the Soviet Union for a decline in defense spending and an increase in consumer goods. How effective do you believe this pressure is in the Soviet Union now, and how well is it organized? Do you feel that these pressures are substantial enough to overcome the opposing pressures for the military, for increased military spending?

Mr. FAINSOD. The problem here is the word "pressure," and how you translate pressure into action. I think I would prefer to use the word "aspirations," that there is tremendous pent-up aspiration among Soviet people for more consumer goods, for better housing. This, I think, is undeniable. But the problem here is how one makes this kind of aspiration effective. And the way in which I think it tends to be made effective in the Soviet system—if I can go back to what was said earlier—is that the leadership itself has found that it can get more out of people by providing more in the way of incentives. And more in the way of incentives means making available more in the way of consumer goods and more in the way of housing. I think that there may be some within the Soviet leadership who would put more weight on ministering to those aspirations than others.

And I think there have been indications of some division of view on this question within the leadership in some of the speeches made in particularly the period immediately after Khrushchev's downfall and indeed in the Khrushchev period, too. There are differences. But I think if the chips are really down, and it is a question of the leadership's view of where security lies at a given moment, considerations of national security are likely to take precedence.

Senator JORDAN. The chairman was discussing with you the question of the Soviet attitude versus the Soviet capability.

I gathered that you interpret the escalation in the arms race being one of action and reaction. Mr. Inkeles, in that instance, if that is true, how do we explain the fragmental orbit bombardment system—FOBS—the plans of the Russians to evacuate the cities, which must be part of an offensive plan rather than a defensive system? How do we explain the development of high-megatonnage weapons systems and air-to-air nuclear systems that they appear to be deploying, and for which we have no counterpart?

Mr. INKELES. I can't claim to be an expert in the technical questions which are raised by the choice of one or another system of offense or defense. So I would like, if I might, Senator Jordan, to respond to your question by putting it in a somewhat broader context.

I would suggest that there are two ways in which we can assess the Soviet pattern insofar as it involves reaction to action by the United States. One is to make, as you have suggested, and as many of our experts are able to do, systematic lists of different weapons systems and consider over time how those weapons systems have been put in one or another kind of balance, and derive from that a picture of action and reaction. I myself would incline much more to a model which emphasized the general conception that Soviet leaders have of the nature of the world situation, and of their place in it, and the goals and priorities that they have set, the objectives they have established, and the particular sensitivities that they manifest.

In that context I would, as I believe Senator Proxmire would, say that although there are certain systems possessed by the U.S.S.R. alone—such as the FOBS systems, the large megaton weapons, the land-based delivery systems which were mentioned by Mr. Wolfe—all of these probably can be matched by systems which the United States developed which are not precisely matched by the Soviet Union. And I think in both cases what is involved is that the leadership of both countries is attempting to make an assessment of their general position vis-a-vis the other major power, because most of this exchange does involve the relationship between the Soviet Union and the United States more or less exclusively as the central focus of concern on the part of the leadership on both sides.

I consider that any such assessment is inherently very unstable. It might shift markedly at any time. No one can say with precision which direction it will go in. But I would say that if you read the historical record the Soviet leaders have apparently either not had the prime intention, or they have not had the confidence, to believe that they could impose their control and dominance over the entire world, whatever their aspiration in that direction may have been.

Immediately after the Second World War they showed a very marked movement in the direction of broad expansion of the base of their power, one which was so marked that it left many people in the West very uncertain as to whether or not the Soviet Union meant simply to keep going, eventually attempting to establish its dominance in all parts of the world. As we discovered later—and it may have been in part because of our reaction—they seemed to come to a halt, mainly in Europe. And therefore we speak of them, as I think Mr. Wolfe properly does, as having followed mainly a continental strategy, although at times seemingly threatening to us.

At a later period of time there have been substantial movements outside of that relatively more circumscribed realm to new sites in which they were attempting to maintain forces and systems of delivery. The Cuban case is one outstanding example. But I would say that if you take the number of sectors of the world in which the Soviet Union might have attempted to assert such a presence, or if you balance it along side the number of places in which the United States attempted to and did successfully assert its presence, Soviet action does

not seem to add up to a picture in which there has been for a long time a clear, well-developed Soviet plan to become a truly global power.

The U.S.S.R. has sought to be a world power in the sense that it has been very eager to prevent the United States from having freedom of action which went beyond certain very definite limits. I suppose we must assume, because we must assume this of any leadership, that the Soviet leadership would be very happy to have its influence extended further. But as to action in that direction, I believe one cannot make a very marked case for it. The recent involvement in the Middle East is probably the chief additional exception beyond Cuba. In the Cuban case the Soviet pressure on Cuba, I believe, has been mainly to get them to cool it rather than to get them to intensify their revolutionary activity in South America at large. And in the case of the Middle Eastern situation, distressing as it may be to us to see the relative shift in the balance of forces that has occurred there, I believe that the Soviet role has been, relatively speaking, one of attempting to temper the situation to avoid further escalation on a large scale.

And so on balance I would say that the Soviet effort has not been to establish itself in the physical sense as a presence in all parts of the globe.

Senator JORDAN. Thank you. My time is up. I will be back.

Chairman PROXMIER. Congressman Conable?

Representative CONABLE. Thank you, Mr. Chairman.

I am very interested in the question of constraint on leadership, both at home here and in the Soviet Union. And here, of course, we know very well the constraints on our leadership. There are constitutional problems, and there are political problems.

In the Soviet Union I think one example of the type of bureaucratic constraint that you have been talking about—particularly you, Mr. Inkeles—relates to a comment you frequently hear about Cuba, the fact that the present Russian leadership would not have gone into Cuba as eagerly and as quickly as Khrushchev did, but having got there they would not have backed out as easily either, the implication being that collective leadership is considerably less flexible than the leadership of the top personality. Would you gentlemen agree with that assessment? Mr. Inkeles?

Mr. INKELES. I think I would be prepared to say that it is likely to be less innovative, because I think it is very hard when you are having collective action to develop a clear-cut simple, sharp, and unambiguous policy.

Representative CONABLE. But having made a decision it is very difficult to change it also, isn't it?

Mr. INKELES. I was going to enter a reservation on that score, although I think the question you raise is a difficult one, to which social science has no immediate present answer. But I believe that very often one of the things that happens in collective leadership is that it is hard to maintain a position, because the certainty that one individual has about the correctness of his policy can often be more easily maintained than is possible in a committee session in which individuals are subjected to very substantial cross pressures. Committee rule may therefore make policy more inflexible and unwieldy in many ways, and in

other ways it may make it very difficult to maintain, at all odds and in the face of substantial pressures, a position to which you had previously committed yourself.

Representative CONABLE. Henry Kissinger in his recent book on foreign policy puts a good deal of emphasis on the restraints bureaucracy imposes on leadership. I wonder if you gentlemen would feel that this is more likely to be true, or if leadership in the Soviet Union today is more likely to be constrained by crises of one sort or another domestically; not necessarily the rise of expectations in the consumer goods area but problems like the failure of crops, and so forth. Are these domestic crises more likely to be constraining influences than the functioning of a bureaucracy as such?

Professor Fainsod, would you like to answer that?

Mr. FAINSDOD. Certainly these natural restraints are restraints that are unavoidable.

But I think the bureaucratic restraints of which you spoke are also extremely important. And one has a sense, for example, that one of the real contributions to Khrushchev's own downfall—there were many, many reasons which go to explain it—but one which is not often made as much of as I think it ought to be, was his effort to shake up the bureaucracy of the party, and indeed of the state administration, too. And in the process he in a sense undermined his own base of power. And one of the characteristics I think of this period since Khrushchev has been a rather remarkable degree of bureaucratic continuity, and in the restoration of the people who were demoted by Khrushchev from positions of influence, a tendency on the part of the leadership to simply become older rather than to be turned over in the form of purges—a tendency, in other words, to play along with the existing bureaucratic structure. And this may well also go along with the problems of collective leadership.

Representative CONABLE. Professor Fainsod, would you give the same credence to the Lake Baikal incident that Mr. Inkeles gave us? I am interested in that because it seems to me that the Government itself publicized this dispute over pollution to a substantial degree, and that the dissents that were made were largely technical. Was that really a manifestation of significant dissent, or was that some sort of a show?

Mr. FAINSDOD. I wouldn't regard this as a major demonstration of dissent in a political sense at all. But that it does indicate a kind of sensitivity to the problem of pollution I think is evident, and I suspect not merely shared by lovers of beauty in the Soviet Union outside the top party leadership, but also by some people in the leadership who gave more weight to this than they would have in an earlier period.

Representative CONABLE. Do we find many examples of such type of dialog in the Soviet Union today?

Mr. FAINSDOD. I think the significant dissent is not the dissent which expresses itself in the official press. We do have to a degree. I think, that is unparalleled compared to the Stalinist period, we do have a series of protests, a reaching out for more freedom, that is manifest among intellectuals, and manifest, I think, in the scientific community.

Representative CONABLE. There still is not political dialog as such, is there?

Mr. FAINSOD. Not in the sense of its being a part of the regular political process. It is underground, more or less.

Representative CONABLE. One other question I would like to ask—and I would like to ask Mr. Wolfe this—is the evidence that the Soviet Union is apparently preparing to expand its aid to North Vietnam the result of military pressure, or is it the result of political decision? To what extent is the Soviet leadership constrained by the Chinese difficulty, particularly with respect to foreign policy matters?

Mr. WOLFE. I think Soviet relations with China perhaps have a great deal to do with the development of Soviet policy in Southeast Asia. I think, in connection with the event you have just adverted to, the apparent intention to increase military support of Hanoi, I think Mr. Brezhnev's reportedly very interesting comments made at the recent meeting in Moscow of world Communist Parties, about the necessity of bringing into being some sort of Asian diplomatic and political alliance as a counterweight to the Chinese, is an extremely interesting corollary of the kind of Soviet interests in creating, as it were, a diversion at the Chinese—at the backdoor of China. The greater Soviet concern about relations with the Chinese along its own border with China becomes, I suppose, in the one sense, a kind of second front policy with its objective being China. Now, I would hasten to say that I don't think this is the only motivation in a pattern of Soviet motivation, but I think it is an important one.

Representative CONABLE. Do we hear much from the Red army about Vietnam, or is it almost entirely the Foreign Minister that talks about Vietnam?

Mr. WOLFE. The military press has treated Vietnam over a long period of time largely from two points of view; there have been two discernible points of view in my reading of the press. One has been a general—and I think it is the more politically attuned—kind of commentary which has glorified the actions of the "freedom fighters" and stressed the kind of difficulties the United States has found itself confronted with in North Vietnam. The other kind of commentary in the military press is a professional weighing of new developments in military technology that have appeared in this area with sort of the implicit and between-the-lines notion, as I read it, that: "Look, we had better give attention to the kinds of military technological developments that are going on here, and our own forces may have to give more attention to them."

One example of this is in the development of air mobile equipment and tactics in Vietnam. There has been some tendency in the Soviet military, professional military press, to this effect.

Representative CONABLE. One last question. Has there been a Russian military presence in Vietnam at all comparable to, for instance, the Russian military presence in Egypt?

Mr. WOLFE. Yes, I think consistently, since perhaps the midmonths of 1965, after Kosygin's visit in January of 1965, which you recall was to effect new military aid arrangements. And he took with him a high-powered military delegation. From that time forward the Soviet Union has sent a good many military technicians to North Vietnam to teach the North Vietnamese how to operate some of the very complicated systems the Soviet Union has furnished, the SAM sites being an

example. And I am sure in the early days of the use of these sites it was probably necessary to employ Soviet technicians in what would at best be a very thinly disguised combat function. I think the Vietnamese themselves have learned in taking over these systems, and that probably Soviet participation in this sense has tended to decrease.

Chairman PROXMIRE. I am delighted to welcome to the committee a new member, a distinguished Member of the House of Representatives, the Honorable Clarence Brown. He is also a member of the Interstate and Foreign Commerce Committee and the Government Operations Committee, and is the son of an illustrious father who served for many years in the House of Representatives.

Mr. Brown, we are delighted to have you.

Representative BROWN. Thank you very much, Mr. Chairman. I really had not intended to ask any questions, but I am fascinated by the testimony, so I would like to raise some points for consideration, if I may.

Professor Fainsod, you discussed Mr. Podgorny's speech and indicated that the views expressed therein have been countermanded, or at least reversed to some extent, by other speeches which followed. Now, in the assessment of the significance of speeches by Soviet leaders isn't it necessary to do a little bit of evaluation on the basis of the ascendancy of the people making the remarks?

And I wanted to ask whether there was any indication that Podgorny's relative position in the Soviet hierarchy suffered?

Mr. FAINSOD. He did suffer a demotion. He was a party secretary, and was shifted out of that position and made chairman of the Presidium of the Supreme Soviet, which keeps him very much in the public eye, and which gives him a very honorific position. And he still stands in all the pictures close to the leadership. But if one is interested in closeness to the actual seats of power, the array of party secretaries, the party secretariat is pretty central.

Representative BROWN. Thank you.

Mr. Inkeles, I want to explore a couple of philosophical questions with you with reference to the statement you made about the leadership of the Soviet Union being inclined to undertake their policies without complete regard for the interests of other elements in the society, as is the case in a more open society. Isn't it also true that information about what is going on abroad can be fairly well limited in this journalistic approach of justifying domestic action? Can't the press in the Soviet Union pretty well assign motives to the actions of the United States, which the leadership of the Soviet hierarchy would want to have assigned to them?

Mr. INKELES. It not only can, but it does. All important newspapers are the agents either of the Government or the party. It is their responsibility to dispense the official point of view both as regards to foreign and domestic policy. Soviet citizens have been reputed to have the capacity to read between the lines and to interpret the communications that they get in the official press in a way that often gives them some defense against the relatively absolute monopoly of communications which the Government has.

It is, however, obviously much easier to check one's impressions of whether the Government's statements are correct or incorrect on

the domestic scene. For example, if there are assertions of the fact that the Government is increasing its supply of shoes to shops which distribute shoes, you can check that for yourself by going to such a shop and seeing if you can in fact get a pair of shoes of a certain size and color whereas you couldn't earlier. To check out impressions in the realm of foreign affairs is much more difficult. And therefore again, insofar a public opinion is an issue at all, the Soviet Government has the advantage of either shaping an opinion about foreign affairs largely to suit its own purposes, or, which I think is more important, to prevent the flow of information into the system which would contradict the impressions being given by the official press. The Soviet citizen, thrown back on his own resources and not being able to check out impressions in the same way as he can in domestic affairs or foreign affairs, is thereby relatively more a prisoner of the official communications media. That has been my impression over quite a number of years. If you check out what a Soviet citizen says in a relatively informal conversation, the impression which he holds is somewhat more independent and somewhat more realistic in regards to domestic as against foreign developments.

Representative BROWN. So with reference to our approaches to international policies—perhaps my first question really is more academic—it is the Soviet leadership whose reaction we must assess or must have, and they in turn, depending on how they want to read this, confide it to the Soviet people as they like, isn't that right?

Mr. INKELES. I think that is true.

Representative BROWN. Let me get another hypothetical question in here—and I had to write this down because it is a little circuitous, and I am not sure I made any more sense writing it down—but in the judgment of an open society such as ours, by a closed society such as the Soviet Union, isn't there likelihood that the judgment of the closed society of the open society will be better, more accurate than the open society's judgment of the closed society?

Mr. INKELES. If I understand the question—and it is a complex one—I think I would say "No."

Representative BROWN. You mean you would say that the open society is better able to judge what motivates a closed society than the closed society is able to judge what motivates an open society?

Mr. INKELES. Exactly. It is my impression—indeed it is more than that, I would say it is a firm opinion I have held for a long time—that the accuracy with which the people in the United States, especially the scholarly and professional community of experts, interpret the workings of the Soviet system and its motivations and intentions has been greater than the image which the Soviet specialists in this area, and politicians, have had of how the American system works. Indeed, our system. I find, is generally a very, very deep and puzzling thing to them. The principle of an open system is very hard for them to grasp.

Representative BROWN. I wonder if your colleagues would agree with that assessment?

Mr. WOLFE. I would in general, yes.

Mr. FAINSD. Indeed, the Soviet leadership has been in general very much aware of this. If you go back to the 20th Party Congress you



find Mikoyan making a big speech at the Congress saying that the Americans are studying the Soviet Union with great care, and asking what the Soviet Union is doing to study the United States. And in the wake of this they began to increase their activity, and indeed within the last year or two they have established a special institute for the study of the United States. And the collaborators of this institute have been traveling all over the place; they spent a lot of time in Washington, New York, Harvard, and they have even gone west of the Mississippi, and in general they feel—I mean the leadership itself feels—the need for a more realistic picture of American politics, the economy, the society, than they have obtained before.

I have the sense that this comes more from the Kosygin side of the government than it does from the Brezhnev side on the basis of the contacts of the people who are in charge of this particular activity.

Representative BROWN. I have one other question I would like to ask. But I would be glad to yield.

Representative CONABLE. Just following up on that, what is the comparable position in, let's say, arms reduction talks? We have no reason to doubt the credibility of the Russian leaders to implement some agreed action with respect to arms reduction. But suppose we send our leader to such talks, having first had full-fledged debate on ABM, and decided not to go ahead with it after he has asked for it? The Russians will have real reason to doubt his credibility as a leader of the American people.

In the light of your answer on this: how do you judge the relative positions of the two leaders? Certainly they know a good deal more about dissent in this country than we know about dissent in their country.

Mr. FAINSOD. I would say that this is precisely part of the problem, that until recently there wasn't a very realistic sense of the limitations on the power of our Executive; for example, his relationship with the Congress, and so on. And one of the things that is emerging is a more realistic appreciation of this as a result of the work that they are doing in this institute and elsewhere. So that in this sense difficulties of the past, I think, are likely to be corrected. I don't know whether this is the kind of thing you have in mind or not by putting your question.

Representative BROWN. I just observed that their capacity to make the decision and make it stick at the top level is probably better than the capacity of American leadership to make decision stick, if people don't want to go along with it. But on the other hand, you can be assured that when that decision has been made in this country and the people don't want to go along with it, that is it, and that is the way it is going to be. On the other hand, in the Soviet Union the decision may be publicly one way and may not be the same way in point of fact.

Mr. FAINSOD. I would only qualify that in this respect: that, while it is true that the bulk of the general public will have very little influence, or relatively little influence on the decision, still a decision can be the subject of a great deal of infighting in their system just as it is in ours. And this, I think, we sometimes fail to appreciate.

Representative BROWN. Let me ask another social science type of

question. I don't want to intrude on the chairman's hospitality in my appearance here before this committee.

Chairman PROXMIRE. Go ahead, you are asking some good questions.

Representative BROWN. Isn't it likely in a developing society, as a nation becomes more mature, that the opportunity to express views that are international as opposed to nationalistic stirs much less unfavorable reaction, and that conversely, in a society that is not quite as mature, anything that smacks of a lack of patriotism, or a downgrading of nationalistic interests as opposed to international accommodation, would be slow to emerge? I am making the point with respect to the dissent and the opportunity to squelch dissent in the Soviet Union. I would think that the most dangerous area of dissent, were you an intellectual or bureaucratic leader in the Soviet Union, would be not with reference to national goals, but with reference to some international accommodations as opposed to nationalistic interest. Isn't that about the last thing that is going to occur in a democratizing society?

Mr. INKELES. The evidence in the Soviet Union might bear you out in suggesting this sequence. I think one can say quite firmly that, of all the instances in which there has been any substantial amount of dissent that we know about publicly in the Soviet Union, the foreign policy action of the Soviet Union has much more rarely emerged, indeed almost never, as the focus of these actions, whereas various aspects of the domestic policy of the Soviet Union, especially things involving personal and civil liberties, and above all freedom with regard to intellectual expression, are the things that have been concentrated on.

I would not, however, say in more general terms that we could establish a clear correlation between the level of development of a nation and the extent to which any departure from a narrowly defined concept of patriotism is allowed. I think that stems from another characteristic of the system which has to do more with whether it is one or another kind of policy rather than whether it is a highly developed economy or a relatively underdeveloped economy. Two of the most outstanding examples in our recent past history have been both the Soviet Union, which at least for some time has been a highly developed nation, and Nazi Germany, both of which imposed extremely narrow limits on any expression with regard to dissent from foreign policy even though they were in a relatively high stage of development.

Of course, citing these exceptions doesn't prove that if you did a study that took in nations all around the world that the basic pattern you suggested might not be manifested.

In my estimation the two things go very much together, although there may be a timelag. And the critical stage is the shift away from the model of a relatively closed system, which the Soviet Union still more or less is.

Its movement to becoming a more open society—which is linked to the level of development of the Soviet Union—has meant there, as it has everywhere, increasing complexity of the system, the necessity for much more coordination between the parts, a great deal of

flexibility that was previously lacking, openness to new ideas and an acceptance of the innovative personality, and innovative approaches to problems which previously were defined in relatively narrow and authoritarian ways. And the crisis which is being experienced in the Soviet Union lies precisely here: that its level of development is forcing it to move toward a model for organizing the internal life of the society different from the way which was organized by Stalin and which seemed to work for the period of forced-draft industrialization through the crisis period of defending the country in the war with Germany. But it became increasingly apparent after the war the the system wasn't working any longer in a way that was adequate, in response to the increasing complexity of the society and its level of economic and social culture of outlet.

The crisis of the Soviet leadership today is how to move in the direction of a more complex and subtle model and still not give up centralized control. It is a dilemma which is extremely different to them. And our response to what they do, I think we should always keep in mind, is not irrelevant to the outcome of the particular dilemma that they face.

Chairman PROXMIRE. Gentlemen, in a few weeks we are going to have to make an important decision on the military budget, and we are going to have to continue to make decisions like that for the next few years at least, if we are lucky enough to get reelected. We have to decide how much of our resources are going into defense and how much are going into nondefense expenditures.

We have asked you gentlemen to come before us because you know far more about Russia than anybody in the Congress does. And you have devoted much of your lives to studying it. You are experts in that regard. I realize that you feel limitations on your ability, but we have to bite the bullet and make these decisions. I would like to ask each of you, on the basis of what you know about what we are putting into our military budget, whether you feel that we can safely and wisely reduce the military budget, whether it has to be about the level of \$80 billion or so that has been requested, or whether it should be increased?

I will start with Professor Fainsod. And I am asking especially with regard to the fact that witness after witness has told us before today that a central, principal problem is the threat of the Soviet Union.

The size of our military budget depends on the Soviet Union. This has been the assertion made by doves and hawks and economists of all kinds.

Mr. FAINSOD. Certainly we are both superpowers. And our interests do collide at many points. But I do think one always has to remember that we have a common interest too, a common interest in mutual survival, a common interest in continuing to live on this earth. And it does seem to me that this common interest at least points toward the possibility of exploring arrangements in the arms control field which will limit commitments on both sides. I don't think we can act unilaterally, nor can they act unilaterally. The extent to which we succeed effectively in limiting our military commitments will depend on the seriousness with which both approach this process of arms negotiation and

arms limitation. It is my general impression from the Soviet people whom I have seen in the institute of which I spoke earlier and others that there is a disposition to enter into these negotiations at this point. They have made it clear.

They have been spending a lot of time exploring our receptiveness. And I would hope that we could take this invitation up and see whether we can find mutually satisfactory arrangements which will enable us to deescalate our military commitments. I think we have needs and they have needs which can be more fully satisfied if such an effort is a success.

I recognize that these negotiations may fail. But it seems to me of the essence that we try before we admit failure in advance.

Chairman PROXMIRE. Professor Inkeles?

Mr. INKELES. Senator Proxmire, you asked, can we safely reduce our arms commitment. And, of course, that raises the question: What is a safe level of investment in armament, especially in the present world situation?

It seems that no one really knows, except that there is a widespread notion that you are never safe enough, and therefore one moves permanently on an escalator which takes one higher and higher in a system which seems to involve a parallel and equally rapid moving escalator on the other side. Both the United States and the Soviet Union, I believe, are caught in this situation. I think there are relatively strong interests, not based on considerations necessarily of morality or even of good will, but related to self-interest, and an awareness of national problem on both sides which creates a very substantial disposition toward a shift in this pattern.

And to effect a change in this situation obviously depends on two types of activity. One of these, which Professor Fainsod refers to, which I have had some contact with myself, and which I believe should be encouraged by every means, involves discussions both at the Government level, and more informally between representatives of the nations involved, to test out the commitment, the interest in, the willingness to explore systematically an attack on this problem which would proceed simultaneously on both sides, that is to say, essentially bilateral approaches. I think there would be substantial responsiveness in the Soviet Union and in the United States to such discussions.

But I think also we should not lose track of the fact that to a certain extent we may be caught in a vicious circle. And breaking out of a vicious circle is an extremely difficult thing to do unless you accept the notion of in part giving up bilateral action and considering seriously a dramatic set of unilateral actions.

And so I feel that the possibility exists in the United States today, partly because of such open and public discussion of the issues as we are having here, of winning a substantial public support for the idea of a decidedly limited, but nevertheless quite significant, symbolic series of gestures on the part of the United States which would be undertaken as a show of our commitment to the long-term objective of peace, and as a contribution toward making sure that the bilateral discussions when they take place occur in a situation of general acceptance.

Chairman PROXMIRE. Are you talking about reducing our military commitment in any way specifically? Do you have one or two examples in mind?

Mr. INKELES. I think the choice of these obviously should be technical ones. The experience of our negotiations in Vietnam can be used to argue both that the granting of concessions is productive, and to argue that it is counterproductive.

Chairman PROXMIRE. Would you say, for example, that the decision of Congress not to deploy the ABM would be one of the things you have in mind?

Mr. INKELES. I think that would be one of the things that would decrease the tightness of the circle of competition between the Soviet Union and the United States.

Chairman PROXMIRE. The decision to at least postpone testing MIRV's?

Mr. INKELES. I clearly should not make offers on that score. I would like to say that I do believe, however, that the effect of a decision by Congress would be greatly enhanced if in addition the President were to make a declaration of intention that seemed to point in the direction of this desire to open up the possibility of balanced bilateral talks.

Chairman PROXMIRE. Professor Wolfe?

Mr. WOLFE. I think in answering this question—

Chairman PROXMIRE. I realize it is a difficult question, but I ask this because we have a difficult problem. And of course I think there are many cheap hawks in the Congress today, that is, a cheap hawk you define as one who feels that we have to maintain the present strategic attitude, perhaps, the notion of a very strong armed forces, but that we can do it for a lot less than we are spending now, that is, that we can cut the military budget \$5, \$10 billion—we have witnesses from the Pentagon that tell us something like that—without reducing our combat effectiveness.

I hope I haven't complicated it further for you, Professor Wolfe, but I know you are up to it.

Mr. WOLFE. It is complicated enough.

But the point I wanted to make was to make the distinction sharp and clear in the beginning between aspirations and one's candid estimate of the likelihood of things happening. I don't think there is much question on the first part of this as far as aspiration go. In this country, and to a great extent in the Soviet Union as well, there are a great many people who would like to see resources used in other ways than they are being used when they go into spiraling military allocations. And I don't want to argue that everybody's heart is not in the right place on this. Obviously there are some people who have a narrow set of interests in any situation as well. But when it comes to the second part of the question, concerning likelihood, against the background of the way I think the Soviet system operates, the way I have sketched it, the momentum built into it by the way it has met problems in the past, and by its bureaucracy, and so on, I would be giving you much less than a candid answer if I said that I had any great amount of optimism that the talks with the Soviet Union are going to greatly change the Soviet Union's allocation of resources to what it conceives as purposes to build its security.

Chairman PROXMIRE. On that assumption, then, would you feel that we could reduce the military budget safely on the assumption that the talks will be indecisive, certainly for the next couple of months, and we have to make our decision in the meantime?

Mr. WOLFE. I think that talks are necessary and useful. And one of their functions should be to test the kind of proposition that I just made. None of us is infallible, and nobody is going to know how these things are going to come out until you start to get down to the "nitty-gritty" with the Soviet Union on specific problems. I would be delighted to be proven wrong in the prediction that it is going to be a long day in May before much more will emerge from these talks than formal registration of the kind of change that has come about in the relationship between the two countries. I would hope that I am wrong, but professionally I am a skeptic on this particular point.

But I do want to end on what for me does seem to me to be an optimistic note. Regardless of all the tradition-laden aspects, the bureaucratic momentum built into the systems on both sides, it is true that the two countries have recognized an important interest in trying to put a ceiling of some kind, a curb of some kind on the strategic arms competition, they have done a lot of waltzing and dancing in order to get to this dialog.

And I think they are about to get there. And I think this in itself is a very important phenomenon in the relationship between these two powers. And just as they have moved in this direction in regard to strategic limitations, I think they are soon going to begin recognizing, in fact one can say that in certain specific instances there has been a recognition of the fact that on a mutually agreeable basis the two countries are going to have to work out some kind of rules of the game to keep their military power in various parts of the world from getting interpenetrated. I would suppose that maybe the Soviet cooperation in searching for the crew of the 121 which was shot down off North Korea may be an early manifestation of a sense of necessary cooperation that hopefully indicates another direction in which the two countries may see a development of mutual interest in limiting the kind of competition between their respective power entities that has characterized the past.

Chairman PROXMIRE. In seeing what we are up against, the Soviet Union, on the basis of the testimony, I think, of all of you gentlemen—I don't think all of you specifically cited it, but you seemed to agree that the Soviet Union is spending something like 17.9 billion rubles in 1969, something in that area, which, a ruble being roughly equivalent to a dollar, worth a little more, is maybe \$20 billion. We are spending \$80 billion. You obviously can't compare this because their rate of pay is less, and perhaps the prices of what they buy is quite different.

But then Professor Fainsod testified that one estimate of the proportional gross national product devoted to defense and military spending is in the area of 9 or 10 percent, is that correct?

Mr. FAINSD. That is correct.

Chairman PROXMIRE. Which is about what we have. We have an economy which is about twice as large as theirs. On this basis—and we have three and a half million people in the Armed Forces, which is substantially more than they have—is there any comparison, overall

comparison we can get as to the amount of resources, absolute amount of resources that we devote to military compared to what they devote? Have you come to any conclusion on this?

Mr. FAINSD. I don't know that there is any precise way in which a question like that can be answered. In part, it is a matter of will. And in part it is also a matter of what it is you want to sacrifice, future growth or present standard of living.

Chairman PROXMIRE. You see what I had in mind, Professor Fainsod. You were talking and putting a lot of emphasis on arms negotiations, presumably based, if not on parity, on something fairly like parity. As Professor Wolfe has indicated, they have some different weapons systems. They have no aircraft carriers; we have 15. And they have some things of which we don't have any at all. What I am thinking is the overall position with which we go into this arms talk. We seem to have, on the basis of statistics, a substantial military superiority. It may well be that they are closing the gap in strategic missiles or something of that kind. But if we do have this kind of superiority, does it seem to you that this very substantial superiority we seem to have is necessary.

Should we continue this kind of military commitment?

Mr. FAINSD. I thought the new word was sufficiency rather than superiority.

Chairman PROXMIRE. All right, fine.

Mr. FAINSD. And I take it, although I am in no sense an expert in the military field, I take it that what matters here is the effectiveness of the deterrent; that is, the capacity, really, to do great damage to the other in the event of an exchange, that this is what constitutes the constraint. And if you project the kind of new round in the arms race we will lift the level of expenditures greatly over the next decade, and you are precisely where you were at the end of that decade in terms of the relationship of power, it doesn't seem to me to make much sense on either side to put yourself in that position.

Chairman PROXMIRE. I am working toward another aspect of this, too. I am trying to discover whether the Soviets are just more efficient than we are—which is an appalling thought to me, I always thought America was more efficient than the Soviet Union in everything—but they seem to be putting fewer absolute resources, fewer men, fewer material resources into the military than we are, substantially fewer. And yet we are told by the Secretary of Defense and others that they are rapidly gaining on us, and that they may be superior to us. What is wrong? How can this be? Is it that we are just wasting such a fantastic amount in the military area that we have to take a much, much harder look than we ever have before, or is this an exaggeration? Are we substantially superior in the area of the Navy, Air Force, et cetera?

Mr. FAINSD. I would prefer to have Colonel Wolfe address himself to that.

But before he does, I think this is not the first time we have heard this kind of warning, it seems to me, about their catching up and their superiority. It seems to me I remember talk of a missile gap somewhat earlier, which in fact did not exist. And I rather suspect that even though it can be documented that their land-based missiles

increased greatly, I suspect on an overall basis we are still in a perfectly comfortable position with reference to them.

But I don't pretend really to be expert in this area. And I prefer to defer to others who are.

Chairman PROXMIRE. Colonel Wolfe, you have been called on.

Mr. WOLFE. It is a very difficult problem to try to make a comparison between apples and oranges. But one has to make the attempt.

I suppose, first of all, so far as the resources of the societies respectively that are tied up in one way or another with what can be broadly called security, I would tend to be particularly suspicious of any given presentation of statistics and figures. One can see argued with considerable force the view that at least 60 percent of the resources of Soviet society are devoted to what can be broadly construed as the security end of the society. It may or may not be possible to sustain that proportion. But I would question—

Chairman PROXMIRE. Sixty percent?

Mr. WOLFE (continuing). Sixty percent of the resources of the society. Anatole Shub recently referred to an analysis and study, whose thesis is precisely this, that more than half of Soviet resources are tied up in noneconomic security purposes, including those that go into a policing system with its informing and surveillance network which we have no counterpart for, obviously.

Chairman PROXMIRE. We have a small counterpart.

Mr. WOLFE. We have a small counterpart. But it is nothing like the Soviet effort, which, even in a day in which the secret police doesn't enjoy quite as much freedom of action as it once had, is a very large effort.

Chairman PROXMIRE. Here you have the discrepancy between 10 percent roughly and 60 percent. Now, that is an enormous amount. That is more than half of everything they produce.

Mr. WOLFE. I am not making a defense of the 60 percent. I am simply—I guess my role is to give some caveats about accepting pat generalizations about the situation on either side of this equation.

Now, there are some points of fact, however, with which I would disagree. For instance, the point you made about our having many more men under arms. My impression is that the Soviet Union's regular armed establishment is approximately the same size as ours at the moment. I think perhaps the figures best known in the public domain are those which the Institute for Strategic Studies in London publishes. And its current figure for the overall size of the Soviet Armed Forces is somewhat over 3 million, which is about the same as ours. We do not maintain a security police and a border guard which is militarized to the extent the Soviet Union does. If one wants to throw this into the pot, then the Soviet Union has a somewhat larger manpower commitment than we do. However, the budget for the security police does not come out of the defense budget even though the security police have a function which can be construed as a defense and a security function.

Similarly, with regard to the Soviet space effort, the budget here is not charged to the Soviet military directly, yet the Soviet Union has at least in its counterpart of NASA a somewhat larger group of either active duty or ex-military people than I suppose the United



States has. It is exceedingly difficult, in short, to distinguish what proportion of resources, time, and effort goes to military purpose in the society.

Nevertheless, my concluding point here would be that on an overall basis, I think somewhere around 10 to 15 percent of the gross Soviet national effort is so oriented. Neither of us measures GNP in the same way, and the Soviet national income is a different concept than our own GNP, but I would venture to say that roughly 10 to 15 percent of the Soviet national effort, which is roughly again about the same proportion of the national effort as ours—

Chairman PROXMIRE. Since their economy is half as big as ours, it would be half the effort of ours, roughly, or it should be half of it potentially. If we are doing a competent job—I don't think they—

Mr. INKELES. Senator Proxmire, if I may I can't address myself to the technical aspect of the question, but I think that something I mentioned during the course of my testimony bears on this issue.

You asked about the efficiency of our investment in defense. Efficiency is something of a measure of the yield you get from the application of given resources to "specified objectives." In that formula it is enormously important to consider what are the "specified objectives." And here I feel there is an enormous difference between the Soviet Union and the United States, a most fundamental one, which no discussion of the question of the extent of our investment in defense relative to the Soviet Union can afford to ignore. As I stated earlier, we in the United States are attempting to maintain our presence in a live, viable, and effective way in every part of the globe militarily. The Soviet Union is not attempting that. It has, as Mr. Wolfe phrased it, most of the time operated as a continental power. It has made small and very modest excursions into other areas, and though those were economic—

Chairman PROXMIRE. I suppose that indicates that if the Soviet Union is going to try to match us in every part of the globe it will be an impossible burden on their resources. Perhaps they can do it, but in view of the fact that they have half the productive economy we have it would seem extremely difficult. We have to make some very tough choices here. And I think you and Mr. Fainsod and perhaps Mr. Wolfe, too, have all indicated that with the greatest will in the world if they do this they tend to destroy their own incentive, they tend to destroy the driving force that you have to have in any economic system, of reward. So there is just a limitation on what they can do.

And your point is that our objectives are far greater, far more absorbing, militarily than theirs—400 bases overseas, over 2,000 installations overseas, they have nothing like that. And if they are going to get into it, it is going to be extraordinarily difficult for them to do so.

Mr. INKELES. May I say that I don't believe they have any intention to get into that, because they recognize it is beyond their resources. Instead they have decided to give more attention to two other approaches to the problem. One is to have a different approach to a different general philosophy about how they should defend themselves in case of a military engagement. And the other, which I think is more important, is that they have accepted the existence of a rou-

stalemate in the military realm and have given primacy not only in domestic affairs, as I said in my statement, but international affairs, to playing a game of politics.

Representative BROWN. I wonder if I could interrupt just at that moment?

Chairman PROXMIRE. Yes, indeed.

Representative BROWN. Have you said that the Russians have made war pay, and it has cost us? I am under the impression that the Russians are definitely involved in Vietnam with reference to supplying, I have heard the figure 80 percent of the weaponry, and so forth. But are you telling me that they are making rubles out of this and accomplishing some of their national policy in the process, whereas for the United States it is a total cost procedure?

Mr. INKELES. I didn't mean to suggest that. Indeed, one of the things which I would say which I believe is partly in answer to one of Senator Proxmire's questions, the one he addressed last to Professor Fainsod, is that if you try to express the cost to the two societies of maintaining the level of armaments which they are engaged in, I believe that the cost to the Soviet people is in fact very much greater than the cost to the United States, despite the seeming parity that exists from the fact that with twice the size of the economy we have twice the size of the effort. And the reason for that, one expressed to me many, many times by the Soviet people I have had contact with, was that we are already an enormously developed society, and one especially more efficient in its consumption sector. And therefore we are able to maintain a standard of living which is far out of the reach of all but a very, very few people in the Soviet Union.

We of course have very important national priorities in this country, such as the rebuilding of our cities, which we consider very urgent. But from the Soviet point of view these are luxuries compared to the situation of their people. Since in both countries investment in the military is bought partly at the expense of further investment in consumption, if you start at a very much lower point, which is the case in the Soviet Union, the cost to you seems very much greater.

Now, with regard to the second point, Mr. Chairman, I didn't mean, if I seemed to, to give the impression that the costs of investment in armaments in Vietnam for the Soviet Union are any different from ours. I believe they are basically the same. They all come out of the same general pool of gross national product which could be invested in other ways.

Representative BROWN. But do they show up in their military budget or are they in a trade position—that is my question—as with their involvement in the Arab-Israeli war also?

Mr. INKELES. This is a question I am sure you will be spending some time on when you have the economists who are specialists in this matter with you in the next day or so. Even Professor Hunter, who is the man many people would take to know most about the proportion of GNP being invested in military activity in the Soviet Union, which he sets at about 8 or 10 percent of GNP, is prepared to assume that there is at least an additional 3 or 4 percent which, he says in his statement, is fairly well hidden and could reasonably be added to that although it now comes under headings like research and development

or trade. It could very well be in fact that there are still other investments of that kind which should be added, and so a figure of 10 per cent may in fact be very conservative. It might possibly be 15. It could conceivably be 20, although that seems to me extremely high. If you would accept that figure, then the impression of the Soviet investment being made as compared to the American investment being made in defense, of course, would be transformed. But I feel that playing this game of numbers is inherently an unsafe one, and perhaps ultimately a dangerous one. I do not believe we are in a position now, nor will be in the position in the immediate future, to set with great precision what the rate of Soviet investment in its defense is. And it would be the wrong basis on which to make the main judgment as to their intentions. I think you derive that from their policy posture, not from their ruble investment in armaments.

Representative BROWN. I have a couple of other questions, but you go ahead.

Chairman PROXMIRE. Do you feel that the Soviets have a potential for superiority over the United States in strategic weapons? How far have they gone toward this goal?

Mr. WOLFE. If one resorts to the numbers game which my colleague just cautioned us against, and I tend to share his suspicion of statistical comparisons—the Soviet Union has moved in land-based strategic missile forces, as I mentioned earlier, to a position where they are on a par with us, and they are in the process of building somewhat more launcher capacity than the United States presently has programed.

In the other two major areas of strategic delivery capability the United States at the present time retains a substantial superiority. One of these is in bomber-delivered strategic weapons, where the United States has still a force of several hundred truly intercontinental bomber aircraft against a force of about 150 comparable bombers, backed up by about 50 tankers, on the Soviet side. And in submarine-launched missiles used for strategic purposes, we still have a substantial superiority. The Soviet Union is now, as everyone knows, in the midst of a program to construct a 16 tube submarine roughly comparable to the Polaris type. They are building those at the rate of something like seven a year. So that conceivably if they go ahead with this program, in the course of 6 or 8 years, or sometime in the next decade, they can attain at least parity with the United States in these particular weapons, assuming that no changes are made in United States programs.

So, the judgment that has to be rendered at the moment is that the United States remains superior in overall strategic forces in terms of these numerical calculations, but the Soviet Union has the capacity, to answer your question more directly, to continue to put resources into the two remaining types of strategic delivery forces where they still need to catch up with the United States. Whether this is going to be the collective judgment that emerges from the Soviet decisionmaking process about the best use of those resources, I for one cannot predict. And I don't know of anybody else who can. It is part, I suppose, of the art of politics and statesmanship to try to affect this Soviet decision to the extent it can be affected by whatever our policies and the mutuality of our expressed interest may be.

Chairman PROXMIRE. You see, we have the feeling, many of us, that our open system with our opportunity for debate and discussion and difference of opinion and the freedom of science to move ahead, and so forth, has great advantages over the Soviet Union in technological ways, in research ways. It is appalling to me to think that maybe the Soviet Union, although they have put a far higher proportion of their resources into training engineers and other technological specialists, could really be ahead of us.

One of the things that has impressed me as chairman of this subcommittee over the last 6 months is the series of failures that this country has suffered in the development of its weapons technology. Some of them are really appalling. For example, in the case of Minuteman, in four widely publicized tests thus far the Minuteman guided by the Mark II avionics system, has failed to leave the ground. And we have the finding of Richard Stubbings that since 1960 we have spent a billion dollars for 11 major weapons systems, and six of them have failed to meet even 25 percent of their standard specifications. I am wondering if the Soviet Union has any similar kind of problem, if they, too, have failed again and again and again and that they are pouring enormous sums into this area without getting any kind of payoff that one could expect on the basis of previous technology.

Mr. WOLFE. If the question is addressed to me, I suspect that the answer is "Yes" that the Soviet Union does have problems and failures. Having lived in Moscow in the American Embassy for a couple of years, and repeatedly having found elevators out of order, and that sort of thing, one has to come to the practical judgment that the Soviet Union has its share of technical failures. Now, the extent to which technical failures involve the commitment of very large resources, this is a matter that I suppose it would be quite difficult to get specific figures on. I might mention the first of the Soviet Union's intercontinental missile systems, the so-called SS-6 system. A good deal of money was spent on this system, but it turned out to be unsatisfactory for several reasons. One, it didn't quite have the range to get to U.S. targets unless it was deployed in a rather northern latitude. They took it to the northern latitude, and apparently encountered a lot of trouble. There is a good deal of open testimony on this in the book by Oleg Penkovsky. One of Penkovsky's close confidantes was the Russian marshal in charge of a part of the Russian missile program. Consequently in his book there was a good deal of discussion of missile programs, including an account of the early deployment of a strategic missile brigade in a far northern area. They found that the climate at that latitude and the frost problems and other things were such that they weren't going to get it to work satisfactorily.

Without going into any further details, one can say that after having spent large development funds on the SS-6 and deployed it in a single location, the Soviet Union did not deploy it anywhere else in the Soviet Union. Now, whether the judgment of those who audited the SS-6 program in the Soviet Union was that this was money down the drain, or whether they chalked it up to experience, or how they handled it in order to absorb the slight trauma in this one particular instance, I don't know. But I think it perhaps illustrates a point that the Soviet system, too, probably has its share of rather costly technical—

Chairman PROXMIRE. We have had some fascinating testimony earlier from Dr. Albert Shapero, who told us that in Western Europe, especially in France, they devote far less manpower and personnel to research. He pointed out that in developing some of their excellent bombers that they have devoted about 10 percent as much personnel as we have. They can't understand how we can do the job with so many people getting in the way. The testimony was rather persuasive and convincing. I am wondering if you gentlemen Sovietologists or Kremlinologists could give us any insight as to whether the Soviet Union has any lessons for us as to their efficiency or what they have been able to do with weapons systems.

Do any of you want to take a crack at that?

Professor Fainsod?

Mr. FAINSOD. I think the difficulty in replying to your question is that we are really not well informed about contemporary experience. On the other hand, we know a good deal, as the result of the memoirs of various Soviet generals and people in their armament industry and so on, that have been published that tell us a great deal about their experience in the pre-World War II period. And I think it is fair to say that after studying that memoir literature nobody is going to go away with the feeling that the Soviet leadership is 10 feet tall. There were lots of mistakes.

You have been through that material, I am sure.

Chairman PROXMIRE. Secretary Acheson, former Secretary of State Acheson, was a very interesting witness before this committee on June 11, and he said this—I would like your comment:

We are not about to move from an area of confrontation to a phase of negotiation. We have been negotiating with the Soviet Union all along. We shall be involved in confrontation into an indeterminate future. The two go hand in hand in the Soviet view . . . I certainly do not oppose such negotiations. I am merely warning against the notion that the Soviet Union is on the verge of a conversion to tractability and accommodation.

Now, I regard this as rather a gloomy prospect and outlook if true. Do you see it, gentlemen, as Secretary Acheson did?

Mr. FAINSOD. If Secretary Acheson is implying that negotiations with the Soviet Union are apt to be very difficult, I suspect that I would agree with him. I think that the fact that they are difficult does not make them any less necessary. And we do have, I think, even in the arms control field, a series of negotiations on test ban limitations and on the nonproliferation treaty which indicate that where you can find mutuality of interest and where you can find mechanisms of control that are self enforcing, that negotiations are possible. The fact that they are difficult, it seems to me—and that they may be accompanied by occasional confrontations—does not make them any less essential.

Mr. INKELÉS. We are all probably prisoners of the models that we use in attesting political affairs, and probably also human relations. And so one has to be very cautious to say about someone that perhaps he is living with an outmoded model. Nevertheless, I feel that in former Secretary Acheson's statement, at least in the part that you quoted, Senator Proxmire, there may be an undue emphasis on an aspect of Soviet response to American foreign policy initiative which was more applicable in an earlier period than necessarily applies today. A good

deal hinges on exactly what meaning you give to words like "tractability" and "accommodation". I do not foresee in the immediate future that Soviet policy negotiators will be very much more tractable. It isn't their job to be tractable. They are being paid and they are representing their country to be as tough as they can as negotiators in defense of what they either conceive of or are told is their national interest. But accommodation is another matter. Accommodation is something that you can adopt if you see it sufficiently to your interest to make certain kinds of adjustment. I think the burden of our testimony today, and the burden of a good deal of other sources, is that there is now, to a much greater degree than before, an interest in many quarters of the Soviet Union in reducing the arms burden in order to be able to achieve other national purposes that they have in mind—not all of which national purposes are necessarily things which would be nice for us. But I think there is a very strong interest in reducing the arms burden in order to shift attention to these other objectives.

Accomplishing that is going to be very difficult. It does require the kind of continuous involvement in negotiations that Professor Fainsod mentioned. But I think it also requires, very appropriately for this committee, a reexamination of national priorities. I would, therefore, emphasize how far the United States, ever since the end of the second World War but particularly since the Berlin crisis, has been dominated by the assumed necessity, for the defense of this country, to maintain an absolute worldwide global presence on a continuous basis, whereas the Soviet Union took a different and much less costly approach to how to maintain itself in a nuclear world.

Chairman PROXMIER. I just wonder if you gentlemen are being realistically up to date on this, this assertion that I hear over and over again about the pressures within the Soviet Union. I hope and pray that you are. Recent articles by Anatole Shub—which have been referred to, I think, by Mr. Wolfe earlier commenting on life in the Soviet Union now—are quite alarming. We wanted Mr. Shub to appear as a witness. Unfortunately, he couldn't. But his articles suggest a return to Stalinism, a defeat for the liberal intellectuals, and the inability of the people to exert much influence. This is a firsthand account based on quite an extended stay in the Soviet Union. And they almost cry out that any gains in the last 10 years or so are being lost. We may be returning to the absolute dictatorship situation, where the cross-fertilization of ideas is anathema. He refers to the repression of liberal thought, freedom of movement, et cetera. Do you feel that this overstates the case? How do you meet this kind of a firsthand view?

Mr. INKELES. I believe the particular facts he gives rise to are all, so far as we can tell, accurate. Even his conclusions with regard to the particular groups he has in mind, for example, the one as to the intellectuals, who I think have lost a great deal of the ground that they won earlier—that is also an accurate statement. But I would not carry that so far as to say that within the Soviet Union we have not seen profound changes. This was referred to, I believe, by all of the people who gave testimony today. We have seen a shift in the direction of a new, more communal, and more fully elaborated system for reaching decisions. Now, such gains in the Soviet Union are inherently very unstable, no doubt. I suppose they are unstable in any society. What the

role of American policy has been in contributing to this instability is something I believe we should not lose sight of. It is a very difficult issue on which to take a firm stand. But it might well be that the size of the American military budget, the vigor of the assertion of the American presence in all parts of the world, might be precisely the kind of factor which tends to erode within the Soviet Union those small movements in the direction of liberalization which otherwise may have asserted themselves. The balance of the world forces may be used by some authorities in the U.S.S.R. to take a harder line to justify the clamping down on the individual and the reduction of such increased liberties as may in the past have been established. It could eventually lead to the outcome that military men rather than civilians come to dominate the Government.

Chairman PROXMIRE. Professor Fainsod?

Mr. FAINSOD. If I can just add a word, I do think that Mr. Shub, at least in his rhetoric, overstates the case a bit. He is undoubtedly right, that the dissident intellectuals are being persecuted in a way in which they were not persecuted in the 1962-63 period. No doubt there are a good many of them who have been arrested and put in jail, and some sent off to the insane asylums, which seems to be kind of an old czarist method of dealing with dissent, too.

But having said that, surely it is a very, very different society than the Stalin society of millions in forced labor camps, with an absolute limitation on freedom of movement, and so on. One of the things that strikes me is that you begin to see a new generation that in a sense has lost the habit of fear; that is, young people speaking up, people who didn't know the Stalinist days. Now, if one begins to develop great hopes around them, and has contacts with them, as I am sure Mr. Shub and his wife did, and then you see the police moving in and closing off those contacts, and arresting some of your friends, as has happened, and arresting some of our exchange students, too, there. It is very, very tempting, I think, immediately to say, "Stalinism is back in full flower," but no one, I think, who knew the Stalinist period either inside or outside the Soviet Union is likely to make that identification.

Chairman PROXMIRE. Professor Wolfe?

Mr. WOLFE. Back to Mr. Acheson's statement, I would tend to put it in slightly different terms than he did. I think as a description of our relationship with the Soviet Union over time that the term sometimes used which puts this on a limited adversary basis is probably as accurate a description as one can find. I think there is room in this kind of adversary relationship for both cooperation in selected instances when the two can see that their mutual interests are joined, and there is also room for a good deal of conflict, including confrontations. With regard to the latter, the future world into which we are moving is one in which the Soviet Union is going to operate from—regardless of what comes out of the arms talks—from a relatively stronger power position vis-a-vis the United States than in the past, and in which changes in the power balance are going to become an important factor in the triangular politics between Washington and Moscow and Peking. To assume that in such a world we can expect to avoid a fairly high incidence of what can be termed confrontations seems to me to be not a very realistic prognosis.

Having again put myself on the side of Cassandra, I would also like to indicate that I think the process of societal change that is going in the Soviet Union, and to which Professor Inkeles has referred, is in a very real sense probably one of the things about which one can in the long term be more optimistic than pessimistic as to the future. Undoubtedly, present leadership is trying to turn the clock back in many ways, as witness its policy in East Europe, and its attempt to enforce a very strict conformity on intellectual dissidents in the Soviet Union. But it seems to me that the Kremlin leaders are swimming against the tide of basic societal change in the Soviet Union. If I had to make a prognosis here, it would be that the Soviet Union in the longer term is not going to sink back into old-fashioned Stalinism. I don't think it is going to evolve into a democratic society either. But the kind of society that allows more room for what we might call creeping pluralism seems to be a possibility. Hopefully, such a society would be a better alternative to deal with than a rigidly dictatorial system.

Chairman PROXMIRE. I am going to yield to Congressman Brown in just a minute.

I would like to ask this one other thing. I was very encouraged by the observation that you made, Professor Fainsod, about their at long last, in the last couple of years, developing a substantial interest in us and establishing an institute for the study of the United States. I think this can only be good, because I am sure, as I think the overwhelming majority Members of the Congress are, that our intentions are good. We have no intention of developing a first strike capability, and I don't know of anybody in the Congress that has any attitude like that at all. And the more they know about us, and the more they understand us, I think the greater likelihood that we can ease some of the pressures.

I would like to ask you if you can suggest any initiatives that occur to you offhand that we can take other than these. No. 1, I feel that a wholesome criticism toward our own military budget is to the interest of our own national defense. I think we can reduce the military budget and have a stronger military force at the same time if we are thoughtful and responsible about it. And I think at the same time as we reduce what we expend in the military area that is wasteful it can have some favorable effect with regard to their attitude.

In the second place, making our intentions as clear as we possibly can is obviously another area.

And then another that occurs to me is a little far out, but an example of the kind of initiative that might be useful. After we land an American on the moon next month I would hope that in the future any kind of space travel would take a Soviet cosmonaut along, and I would hope that we would invite them to take part in our space explorations in a cooperative way. They seem now to be willing to do it. It seems to me that this would have many satisfactory fallout effects. And it might help ease their feeling of hostility toward us and build a basis for cooperation and friendship, and so forth.

If you gentlemen would like to make any other comments of any kind they would be welcome.

Professor Fainsod?

Mr. FAINSDOD. Following along your last suggestion, there are cer-



tainly almost endless opportunities in the area of scientific exchange and cultural exchange. But I don't think one ought to assume that there is any kind of magic formula for eliminating all the possible conflicts of interest between us. I am all for exchanges, and I would like to see as much of it go on as possible. And I think the habit of working together has obvious spillover effects that are useful on both sides.

I like, myself, to avoid confrontations if one can, even though one recognizes that there may be occasions when it is essential. And by this I mean efforts to try to foresee problems that will over the next decade become confrontations. We are hopefully in the midst of some explorations on the Middle East now. But one can see over the horizons the whole problem of Germany, West Berlin, and all of the rest around Berlin and Germany. And it may be that there is little that we can agree on there now. But I would like to see even at this stage a feeling out of views on both sides, the possibilities of trying to discover whether we begin to approach a sort of mutuality of interest in this area that allows room for some initiative.

Again, I have no magic formulas here that will take care of West Berlin or Berlin or take care of Germany over the future. But I do think that a chance to explore issues of this kind, and take advantage of explorations and views over the whole range, and a feeling out of possible developments which might be mutually acceptable before the thing comes to a crisis and a confrontation, is useful.

The whole problem, I think, of our future posture in Southeast Asia—as Colonel Wolfe indicated, Brezhnev in this last speech at the meeting of the Communist Parties threw out a rather ambiguous formulation, but something which suggested a particular interest in the containment of China along the southern corridor in Southeast Asia. And they have been in the last year or two, as you probably know, not merely giving aid to North Vietnam, but they have been establishing diplomatic relations with Singapore, with Malaysia, with Thailand, increasing their trade in the area. And I have no doubt that behind this is the kind of notion of a presence and of potential barriers so far as the Chinese are concerned.

Now, conceivably, there might be here some mutual interest. They are scared to death of a change of attitude on our part that might involve improving our relations with mainland China. People disagree on how one should play this. But at least every time we make anything that resembles an approach to mainland China, the reaction is very quick and very apprehensive so far as the Soviet Union is concerned.

The problem of future policy in Southeast Asia is whether we can interpose checks on the possibility of Chinese expansion in this area—this will take some doing—without necessarily closing off an improvement of our relationships with China. It seems to me that instead of looking for the gimmick what we really ought to be looking for are the kinds of problems that are over the horizon, that are not necessarily upon us just this minute in the form of a crisis or confrontation, and to see whether we can find ways of imaginatively projecting our interest and engaging their interest, so that hopefully we can avoid confrontations rather than find ourselves in the midst of them.

Chairman PROXMIRE. Professor Inkeles?

Mr. INKELES. I would like to indicate my support within the limits

of the objectives we have been discussing of the ideas you suggested on initiatives, such as the reduction of the military budget, making our intentions clear, and perhaps sharing space travel.

I would add one point which Professor Fainsod mentioned also, which I believe the Congress has the power to do something about, although it obviously should not rest only on initiative from Congress. And that is that we should not only maintain but also substantially extend and strengthen the exchange of personnel—scientific, cultural, and political—between the United States and the Soviet Union. It is my impression that a very small investment in this kind of activity has in fact brought an incalculable yield which is of special relevance in the case of the Soviet Union, because as Professor Wolfe was indicating, it is such a closed system. Such exchanges have brought opportunity of discovering what another society was, and what its intention is as Senator Proxmire mentioned earlier, and what the process of decisionmaking really is. It is very difficult to communicate except through this kind of contact. The individuals involved were not, perhaps regrettably, individuals in the highest positions. They were not themselves decisionmakers. But I believe the impressions they carried back with them, the increased insight they obtained into the functioning of American society, play a substantial role in the building up of a climate of opinion which inclined the leaders eventually toward both a greater understanding and also, I believe, a greater accommodation.

But, returning to the point which I think I have been mainly emphasizing in my appearance before you, the primacy of politics. And in this respect, I believe, since the responsibility for the conduct of foreign affairs is largely assigned to the Executive by our Constitution, the powers of the Congress may be very limited. But even so I would like here to emphasize and underline a point which I believe was also being made by Professor Fainsod which I would make slightly differently. My point refers to not just future but also to the past. But, of course, very soon what is the future will become past. And we have an opportunity by linking the two things together to change the long-haul situation. I believe that the Soviet leaders, although they are enormously influenced by particular aspects of our defense posture, including whether we do or do not adopt a particular weapons system, are in the end more influenced by their impression of what our general posture on the world scene is, what we are attempting to achieve, and what we consider the rules of the game. This may fit in very well with the point Senator Proxmire made about making our intentions clear. I would like to say that in my estimation certain actions which we took in the past played a very substantial role in giving the Soviet leaders the impression about what we thought the rules of the game were, and the possibility of accommodation.

In citing these I don't mean to suggest that there aren't instances of very comparable actions on their side, perhaps even more gross, the Hungarian invasion and the recent invasion of Czechoslovakia being only two among a long list of those you could produce. But as I look at our actions in the Bay of Pigs, our intervention in the Dominican Republic, and our intervention in Vietnam, all three have communicated to the Soviet Union certain assumptions about our approach to

international affairs, which lead them to conclude that we are ready sooner than I think is in fact our true national disposition to resort to armed intervention as our chief means for the resolution of international conflicts and tensions. Those interventions have tended to intensify the voices of those people in the Soviet Union who have been arguing a model of American behavior in the international realm, which I believe is not an accurate one. It certainly doesn't have to be. There are alternatives.

Representative BROWN. That brought some perspective to the questions I asked earlier about the 1964-65 developments, and the increase in Soviet expenditures in military budget. In 1964 and 1965, as Chairman Proxmire noted, we were in an official position in this country, or at least an apparent position, of rapprochement with the Soviet Union. We were attempting to build bridges. And at the same time we are going into Vietnam. And that was the precise time when we escalated our activity in Vietnam. And apparently they responded—if one can say that that is the response, that is what created the response—they reacted much more significantly to our activity in Vietnam than they did to our effort to seek rapprochement in trade and other areas. So I am inclined to think that there is a little bit more in what we do externally than in what we do internally in this country. And I am inclined to react further to your suggestion and say that if we want some kinds of deescalation of our relationship with the Soviet Union we might better find them through an effort to withdraw from Vietnam than through an effort to make military weapons decisions.

Chairman PROXMIRE. Were you through, Professor Inkeles?

Mr. INKELES. I think I would agree with the main thrust of your remarks. I think it is important to avoid disappointment, to be careful and not assume that automatically a change in our involvement in Vietnam, even a substantial one, will bring decided changes in the tone of the Soviet Union as it approaches us in international affairs, because that would be an instance of where they are likely to feel that the change that we made was because it was wrested from us by circumstances and not because it indicated that we have any changed view to the balance of world affairs.

I would say a much better example from this point of view, and also perhaps from the Soviet point of view, is what happened in Indonesia. There you had a situation in which it was, at least in the view of many experts, the case that a basically Communist government had taken over a large, wealthy and important nation strategically located, one in which it might have been assumed that we had a very vital interest. We allowed that to happen without any direct intervention. Subsequently—and I think this is a very important lesson for us which is not widely enough realized—internal forces brought about a further change in that situation. It could otherwise have been a Vietnam.

Now, in this case, it happens to be a fact that the Communists were put down and it was done in a very violent way, and there was, of course, the possibility that the Soviet Union might have intervened in order to prevent that from happening, because it doesn't take very lightly the loss of a territory under Communist control anywhere. In this case you might argue that the restraining factor was the Soviet

inability to do anything because it was very far away, but Vietnam is very far from San Francisco, too. I think there were other factors involved. If we could find ways of working out our relations so that the Indonesian example rather than the Vietnam example became a reality, I think there would be a distinct change in the tone of the relations between the two countries and a very meaningful reduction in the arms burden.

So I do place, as you do, Mr. Brown, the political transformations ahead of a mere agreement on details of the defense budget.

Chairman PROXMIRE. Mr. Wolfe?

Mr. WOLFE. I would like to say a word on broad priorities.

But first, if I may, I think there is probably a basic difference in the outlook that Professor Inkeles and I happen to have on the role that the United States conduct on the world stage plays in shaping Soviet conduct. I don't share to the extent he does the feeling that Soviet policy is a matter of reaction to the policy of the United States. I think the example Professor Inkeles cited in Indonesia is an extremely interesting one, because one could make, it seems to me, quite a different case. First of all, the Communists who were overthrown in Indonesia were the proteges of the Chinese and not the Soviet Union. The Soviet Union had an interest to a certain extent in seeing the Chinese embarrassed in that situation. It could also be argued, and I have heard it argued, although no one can settle this argument, that the forces in the Indonesian political structure responsible for stamping out a Communist coup were those forces in the army who got fed up with Sukarno, and who would never have come to the decision to resist, would never have had the gumption to do it, had the United States not been committed militarily to the extent it was in Vietnam, thereby setting an example and spreading a kind of military umbrella over the situation in Southeast Asia.

So let me, gentlemen, just warn against the passionate advocates of a particular point of view whose hope that the future will come out in a way that we would like it to come out may at times lead to advocacy of one set of views without taking others into account.

That brings me to my point about priorities. I would say that the first priority, unquestionably, is a healthy American society. Should our society get itself into great difficulties, I can imagine nothing that would probably make it more tempting for the Soviet—the leadership of the Soviet Union to feel that somehow or other they were on the right side of history after all, and that we were on the wrong side.

Now, when it comes to specific programs and initiatives that we can take in the area of foreign affairs, I would by and large be sympathetic with most of the initiatives I have heard mentioned here, a clearer, more precise understanding of each other's objectives, and so on.

But let me again point out one of the very great difficulties. And I think perhaps the antidote to this is patience over the long run. We did pursue what Mr. Brown referred to as the bridge-building policy. I have been in general sympathetic with the whole concept of bridge building of trying to reconcile what seemed to be the irreconcilable gap between quite opposed ways of looking at the world. But you

have also got to recognize the unhappy fact that it was probably the success of bridge building that led to Czechoslovakia, and the melancholy situation is that the more bridge building succeeds the more we represent an objective danger to the defenders of Communist orthodoxy just by our presence, not because we pursue any active programs that are alined against the Soviet Union, but just that we are sitting out there as an example of an alternative. We are highly objectionable to those Soviet rulers of orthodox mentality for whom the developments in Czechoslovakia represented a very great threat, and which led them to the action they took. Now, until the men who guide the destinies of the Soviet Union have developed a somewhat different outlook on the world, and a different view of our motives in it, and on the sharing of it with others who don't adopt their creed, until that time comes I think the road ahead is going to be a pretty rough one, and we would be well advised to look at it as a matter that is going to require long patience and endurance, and that is not likely to yield to panaceas and gimmicks for solution.

Chairman PROXMIRE. Mr. Brown?

Representative BROWN. I would like to pick up on your point.

I want to ask one question that I have heard no comment whatsoever on. I gather that none of you feel that there was any significance to the epidemic of generals' deaths in the Soviet Union either from the standpoint of position of the military or those men who departed the scene and their views.

Mr. WOLFE. So far as I am aware, most of the Soviet generals in question were in the years when the mortality rate begins to rise. There has been an overaging military command structure, this whole group has moved through time since the last war. And the normal attrition is now fairly high. I think what perhaps caught public attention was that probably some newspaper chap in a bureau some place noticed that the death of four of these men—either two or four, I have forgotten—was attributed to an accident, and accidents in the Soviet Union sometimes have a peculiar connotation. There was, for example, the accident which happened right at the time of Khrushchev's ouster, when Biriuzov, Mironov, and several other Soviet military people perished. And whenever there is an accident the circumstances being what they are, there is a tendency for newspapers to put up their theories. But many of the men who are on this list of obituaries are generals who were in retirement. My own impression is that this is a case of the natural processes at work.

Representative BROWN. There is no use labeling it if you see no relation with respect to the voices influencing Russian policy in the Soviet Union. And I gather that none of you do.

Mr. WOLFE. I do not.

Mr. FAINSD. I think I would agree with Wolfe on this. Some of the announcements were accompanied by a statement that said that the generals died under tragic circumstances, which is a euphemism, I think for something like a plane accident or something of that kind. And I suspect that a certain grouping were probably involved in that accident. But for the rest, they were people in the emeritus retirement stage.

Representative BROWN. Let me ask one other question. If the domes-

tic economy within the Soviet Union is likely to suffer as a result of the problems in agriculture, what would you anticipate would be the reaction of Soviet leadership? Would it be to try to seek further rapprochement with the United States to get either assistance, if it were a severe agricultural problem, in providing food, or would the Soviet leadership be more likely to move toward some kind of an accommodation with reference to the arms race, so as to be able to divert their economic attention to domestic agricultural production and other kinds of domestic production?

Mr. WOLFE. My impression of the agricultural situation is that it is probably not that desperate. I think if the Soviet Union does have, as seems to be the case, a poor yield this year, there may be some question about having to go to hard currency and buy grain abroad as a temporary relief. I also have the impression, however, that the good years, the good years of 1966-1967 wasn't very good—1968 was another good year, probably enabled the Soviet Union to make good the drawdowns on the State grain reserves that occurred earlier and make it unnecessary for them to go outside the Soviet Union to purchase wheat. My own feeling is that while the question of investment in agriculture over the long-term is a very serious one, I don't think that this problem has such unmanageable proportions at the present time for the Soviet leadership that it is going to dictate—be the factor that will dictate their foreign policy attitude to any marked extent.

Mr. FAINSOD. I would agree.

Representative BROWN. I think it was Professor Inkeles who used the example of agriculture and the problems it might face this year.

Mr. INKELES. I don't recall introducing that. It was Professor Fainsod. But I think I am in agreement with the gentleman to my left and to my right that in the first place the size or the extent of the agricultural crisis is likely to be limited. Even if it were extensive, the assumption should be made that the losses are to be made up either from earlier reserves, or by a commitment against future use, and this would not fundamentally change either the pattern of military investment or the general growth of industry. It would probably be reflected in a lower GNP for that period of time, because of course agricultural produce is still so large a part of Soviet GNP.

Representative BROWN. I gather that you think there would be no significant reaction among the Soviet people that would in any way alter Soviet policy?

Mr. FAINSOD. One of the marks, you see, of the difference in this period from an earlier one, is that in 1963 when they did encounter a harvest disaster, a real disaster, they spent three-quarters of a billion dollars in the world wheat market in order to get enough to make sure that people were fed at least at some minimum level. And as Mr. Wolfe has indicated, they have had a succession of pretty good harvests over the last few years. So that there probably is enough of a reserve to draw on even if this turns out to be a pretty bad one. If they had another 1963, they might well again go out into the world market.

Representative BROWN. And they apparently have the reserves to do this; that is, the financial reserves to do this in hard currencies?

Mr. FAINSOD. Yes.

Representative BROWN. I would very much like to explore, but will

not take the time to do so, the Arab-Israeli war as a more specific example of Soviet-United States relationships and the Indonesia war, or the Indonesian power struggles and changes of power. It seems to me that the significance of both United States and the Soviet moves at that time indicate the possibility at least of some kind of accommodation reached in the future between the two countries, but also the very great difficulty in doing that. And I gather, Colonel Wolfe, that what you are saying in your comments—and I wonder if the other gentlemen would agree—that timing is literally everything in this problem, that we apparently have time on our side, that the Soviet Union may be more likely to negotiate as time goes on, and if we can get that time in our relationship that we will find a climate for negotiating better in the future than is the case now?

Mr. FAINSOD. The problem about time is that it depends on what you do with it on both sides. Time in itself is not automatically a solvent. And I think that there are forces which are evolving on the Soviet scene, as Mr. Wolfe has indicated, which over the long range represent sources of hope rather than sources of pessimism. But again they don't evolve in a vacuum, and much depends on what is happening in our own society, what is happening in other parts of the world, and how we respond, and how they respond, and how that other part of the world responds, too. We are dealing with a very complex matter here.

Mr. WOLFE. With respect to the Middle East, I think this is a case that illustrates two points that it is useful to have in mind in our relationship. One, it certainly illustrates the crisis cooperation between the Soviet Union and the United States. If one goes back to the June war, at that particular time, regardless of what the Soviet role may have been in heating up the situation, nonetheless, when it came to the danger of the kind of confrontation that would be unwelcome to the United States and the Soviet Union, the two powers cooperated, in a sense, in mutual crisis management, in order to dampen the crisis. But as soon as the real hot crisis was dampened, then the limit of this kind of cooperation quickly became apparent. And without having to recite the history of the situation since then, it is quite obvious that in many respects American and Soviet policy are not running congruent in this part of the world either.

Representative BROWN. I would just have to observe that, in that case, apparently both countries were involved to some extent in playing the role of world powers. There is some evidence that neither one of us has the capacity to do it, however, when it gets too deeply involved. And maybe that is a good, wholesome circumstance, anyway.

I want to clarify one response that each of you gave to the chairman's question, when he asked specifically about your feeling about ABM and MIRV as a means of demonstrating our interest in reaching accommodation with the Soviet Union. You all three tended to avoid the specific point of that. Am I to assume that you are saying that some accommodation is possible at this time in some area of weaponry or disarmament negotiation, but that a decision as to what specific accommodation should be reached becomes a technical question, and also a question for the ad hoc negotiations?

Mr. WOLFE. That comes fairly close to being my position, although

I certainly would not want to suggest that I think it is only a matter on which technical judgment counts. It is obviously a political matter of the greatest import as well. My own position would be that this is a matter which argues for fairly early convocation of talks, and that the talks should address the question of MIRV and ABM and any other questions which remain.

The strategic relationship of the two countries ought to be fair game to be taken up there. I would not urge, from my own view of this, that the United States unilaterally disavow or abrogate whatever work it is now doing in the MIRV field in advance of the talks with the Soviet Union.

Representative BROWN. The same observation can be made about ABM, I gather, then, because if the Congress takes away from the President any right he may have to get us into the ABM business, that is a decision which has been taken out of the negotiating stage; isn't that correct?

Mr. WOLFE. Yes, that is true. That is probably the reason that in this area one must recognize the separate powers of our governmental system. To what extent the doctrine of separate powers is involved in this particular problem is certainly a matter on which I don't presume to adjudicate. But I have a feeling that there is some point at which, after having heard the case, and concern expressed in the Congress, in the public debate, and so on, this is a matter for which you hold the President of the United States responsible, and if you don't like the way he does it, you don't reelect him. So in this matter, my intuition leans toward letting the President make the judgment—after the country has debated the matter. He has got to live with it if his judgment is not good.

Representative BROWN. I think it is apparent that there is a controversy raging. The point is if the Congress lets the President know how they feel about it—the decision is made, apparently, if the Congress decides against ABM. If they should decide for ABM apparently the President still has the authority, the way it is in the executive branch of the Government, to opt either for ABM or against it in terms of the way and the speed with which the resources are utilized. And so with authority for ABM or with the question still moot, the President goes into any disarmament negotiations better armed than if the Congress has decided that he will not have ABM or MIRV with which to negotiate. Unfortunately—or maybe it is fortunate, I don't know—neither the Senator nor I is likely to go along on these negotiating talks. That will be done by people out of the executive branch of the Government. And the question is, should we make the decisions ahead of time for the President and his executive negotiating officers, or should we give him the negotiating room?

Any comment?

Mr. INKELES. I must say I don't agree with Colonel Wolfe precisely in his interpretation of the divisions of responsibility in this matter under the Constitution. The setting of foreign policy is the concern of the President, but the financing of the programs is the concern of Congress and the Congress is really being asked to make a decision as to whether in fact this ABM program is going to be a productive investment of the resources of the country. I do not see how the



Congress can therefore escape this responsibility, or be denied it, because it is in fact making an investment of this kind. It is obviously not appropriate to this subject to press this point further.

I would also wish to emphasize that in response to your question. I do not feel that the question should be resolved exclusively on technical grounds. If I gave that impression—and I may have—I am sorry. I was trying to avoid committing myself on certain issues where I did not feel technically competent.

Representative BROWN. I meant particular technical grounds as far as you were concerned.

Mr. INKELES. I believe one of the sources of the difficulty that we are in, if we are in difficulty, is that we have tended to make decisions of this kind exclusively, or more or less exclusively, on a technical basis, which means that the responsibility for the decisionmaking has tended to shift away in the Executive Office and to focus onto other criteria. I believe that every decision of this kind carries an enormous freight of political significance. Especially when you are dealing with so complex a pattern as what your overall investment in defense is to be like, the symbolic or political significance of a particular policy should be weighed more heavily. Whether the ABM is an example of that I don't know. The biggest impact on the Soviet Union comes from the actions taken by the President more than the Congress. If the President had declared against the ABM, I think the impact would be much greater than if the Congress denied the President the right to have that program.

Chairman PROXMIRE. Thank you, gentlemen. This has been most enlightening and helpful. You have made an excellent record. I appreciate your appearance so much.

Tomorrow morning the subcommittee will reconvene in this room at 10 o'clock to hear three economists and a political scientist, all experts on the Soviet Union, further on this same subject.

(Whereupon, at 1:35 p.m., the subcommittee recessed, to reconvene at 10 a.m., Tuesday, June 24, 1969.)

# THE MILITARY BUDGET AND NATIONAL ECONOMIC PRIORITIES

## THE ECONOMIC BASIS OF THE RUSSIAN MILITARY CHALLENGE TO THE UNITED STATES

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TUESDAY, JUNE 24, 1969

CONGRESS OF THE UNITED STATES,  
SUBCOMMITTEE ON ECONOMY IN GOVERNMENT  
OF THE JOINT ECONOMIC COMMITTEE,  
*Washington, D.C.*

The Subcommittee on Economy in Government met, pursuant to recess, at 10 a.m., in room S-407, the Capitol, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senator Proxmire and Representative Conable.

Also present: John R. Stark, executive director, and Loughlin F. McHugh, economist.

Chairman PROXMIRE. The subcommittee will come to order.

Unfortunately, this is a day of conflict for members of the subcommittee, but we will proceed. And I am delighted with the quality of the panel this morning, and I look forward enthusiastically to these hearings.

Yesterday the Subcommittee on Economy in Government heard testimony from four experts on Soviet political and social conditions, on decisionmaking process within the Soviet Union, how the power structure operated and many other facets of Soviet life. The committee is continuing this dialog today with somewhat more emphasis being placed on the economic base within the Soviet Union: the rate at which the Soviet economy is growing, its potential for further growth, the structure of the economy, the stresses and strains which limit the attainment of desired objectives, in particular the role of the military as a claimant on the resources of the economy.

The discussion yesterday and today is an integral part of the subcommittee's intensive review of U.S. military requirements in the context of overall national priorities. For we have seen from 3 weeks of testimony on this subject that what is happening in the Soviet Union plays a central role in the establishment of the U.S. military budget. We may be now facing a set of the most important decisions ever posed to the American people: whether there is to be a further round of escalation of the arms race, the end to which cannot be foreseen and the consequence of which may be to postpone the day when we can meet our other high national priorities such as more and bet-

ter education for our people, elimination of poverty, racial peace, urban redevelopment.

The alternative, which we hope and earnestly pray is still available to us, involves a deescalation of the arms race and, as the war in Vietnam is ended, a massive redeployment of our resources to meet and solve our other most pressing problems at home.

I know that the experts with us today will help us better understand the prospect we face for the immediate and longer run future.

Let me briefly introduce them:

Professor Bergson is professor of economics and former director, Russian Research Center, Harvard. He is the architect of a reconstructed series of Soviet national income and product for RAND and USAF. He has supervised more doctorates in the field of Soviet economics than any other professor in the West.

Professor Berliner is professor of economics and chairman of economics department, Brandeis; he was the economic member of Russian emigre interview project in early 1950's, and has special interests in Soviet management, foreign trade, and technology.

Professor Hunter is professor of economics, Haverford. His special interests are Soviet transportation, including passenger cars, Soviet planning and the economic efforts of arms control.

Prof. William Kintner will join us shortly.

He is deputy director of the Institute of Foreign Relations at the University of Pennsylvania. A former army colonel, Dr. Kintner recently released publications on strategic Soviet development which stressed the growing danger of Soviet strategic superiority.

This afternoon at 2 o'clock we shall be hearing David E. Mark, Deputy Director for Research, Bureau of Intelligence and Research at the Department of State.

Gentlemen, I see your presentations vary somewhat in length. We hope in general that you can hold down your formal presentation to about 15 minutes or so—if you are a little longer than that that is perfectly all right—so that we can have time for questions.

Dr. Bergson, would you like to start off? You may go right ahead.

#### **STATEMENT OF ABRAM BERGSON, PROFESSOR OF ECONOMICS, HARVARD UNIVERSITY**

MR. BERGSON. Senator Proxmire, may I say first that I am pleased and honored to appear before the Subcommittee on Economy in Government of the very distinguished Joint Economic Committee. I do have a brief statement which I should be glad to read, and then if you wish I should be glad to try to respond to any questions you may have.

How much is the Soviet Government spending on defense? How have such outlays varied in the course of time? What of their possible future levels?

Its defense budget is a matter on which the Soviet Government continues to be notably secretive, even by its own standards. The magnitude of Soviet military outlays is, as a result, most difficult to appraise meaningfully even with classified materials. It can only be more so without such information. While by now familiar, these facts still

need stressing, for the moral is that data on Soviet defense expenditures, even if seemingly precise, must in fact be speculative. The user of such data is well advised to construe them accordingly.

For what it is worth, however, let me record that the Soviet Government appropriated to defense in 1968 16.7 billion rubles, or \$18.4 billions at the Soviet official rate of exchange. The Soviet official rate of exchange, however, is known to grossly undervalue the ruble in the case of defense goods and services. Moreover, published Soviet budgetary figures on defense, such as that just cited, are incomplete, in the sense that they fail to cover fully items which might properly be included in a comprehensive account of military expenditure. Among other things, the published data omit support of military formations of internal security forces; and very possibly also omit atomic weapon stockpiling and some defense related research. The British Institute of Strategic Studies informs us (in "The Military Balance, 1968-69," pp. 4-5) that the declared Soviet budgetary appropriation for 1968 was equivalent to \$39-\$40 billions, and that overall Soviet military expenditures in that year "could be of the order of about \$50 billions." These figures, I think, are at least as likely to err on the down as on the up side.

If the current level of Soviet defense expenditures is elusive, so, too, is their growth over time, but the expenditures have fairly clearly fluctuated about a rising trend. If the acknowledged budgetary outlays are at all indicative, the trend in fact has for long been a sharply rising one:

SOVIET DEFENSE EXPENDITURES, EXPLICIT (EXCLUDING PENSIONS)

[1950=100 percent]

	Monetary outlays	Real outlays
1940.....	70	103
1944.....	168	284
1950.....	100	100
1955.....	130	144
1960.....	111	168
1965.....	154	246
1967.....	176	278

As indicated, after adjustment for price changes, the outlays are now approaching, if they have not surpassed, the peak level reached in 1944, during World War II.

Defense expenditures are usually taken as a measure of the volume of resources that a country is currently committing to military purposes, but as such they are properly read together with the more important physical magnitudes involved. This is especially in order for the U.S.S.R., where monetary defense data are so difficult to interpret. Physical magnitudes must be determined primarily from classified intelligence, but I should explain that published information on such features of the Soviet military establishment as the size of the armed forces, missile holdings and the like seem very broadly consistent with the levels and trends of defense expenditures referred to.

How Soviet defense expenditures will vary in the future, to come to this question, will depend on the evolving international environment in which the U.S.S.R. finds itself; the foreign policy which the U.S.S.R.

wishes to pursue within this environment and the economic potential available to support one or another such foreign policy, including the defense budget that it requires. Among these different factors, the latter must be accorded priority here. Turning to it, any serious appraisal must, I think, consider a number of aspects:

1. The total output from which the Soviet Government must draw its defense outlays is still relatively limited by U.S. standards. Thus, the U.S.S.R. produced in 1966 a gross national product equal to but one half of ours, or to but two-fifths of ours when calculated per capita.

2. The Soviet GNP continues to grow at a respectable rate, though not as fast as formerly. Whereas total output grew at over 7 percent during 1950-58, the tempo has now declined and during the years 1962-67 averaged but 5.5 percent.

3. Soviet growth for long has been notably expensive in terms of the additional capital that it has required. Even in the 1950's, rapid growth of output could be achieved only through decidedly more rapid growth of capital, and more recently the disproportion between the two trends has become still more marked. Over the 10-year period 1950-60, the stock of Soviet capital per unit of output grew 22 percent. By 1965, or in the interval half as long, it has grown another 14 percent. A corollary is that in order to assure continued expansion of output, the Government must plow back an ever larger share of that output in new investment. This is necessary merely to maintain the tempo of growth of output, never mind to raise it.

4. The Soviet Government through the years promised consumers much. At long last it has concluded that it is expedient to redeem these promises in a greater degree than it did formerly. To a greater extent than in the past, therefore, consumers too must share in the fruits of progress, and consumption is no longer simply the residual segment of total output that it once was.

5. Under the reforms in planning initiated by Brezhnev and Kosygin in September 1965, the Soviet Government hopes to limit further increases in the capital cost of growth, and perhaps even to reduce such costs. Resources allotted to consumption are also to be used more effectively in meeting consumers' demands, particularly in respect of quality and assortment. These reforms are still in process of implementation, and what they will achieve remains to be seen.

In sum, the Soviet Government has been seeking to support a military establishment of the first class with an economy that by U.S. standards has been of the second class. This is a difficult feat, and it is apt to become more difficult in the future, as the competing claims of capital investment and consumption become more demanding. Still the Government has found the necessary means so far, and it should be able to continue to do so. But it can be expected to scrutinize marginal defense requirements for additional military outlays more closely than hitherto. It will do so the more should defense requirements increase more rapidly than output. It also goes without saying that for the U.S.S.R. there has always been an economic case to join in arms control and disarmament measures. That should certainly still be so in the future.

Thank you, Mr. Chairman.

Chairman PROXMIRE. Thank you, Mr. Bergson.

Professor Berliner?

STATEMENT OF JOSEPH S. BERLINER, PROFESSOR OF ECONOMICS,  
BRANDEIS UNIVERSITY

MR. BERLINER. I welcome the opportunity to appear before this subcommittee. I have an academic interest in Soviet priorities, but I have a very personal interest in U.S. priorities. And the opportunity to review the one and think about the other is welcome indeed.

I won't read my paper. I have shot my wad, so to speak, in my written statement, and I would like just to summarize the high points of the argument.

The main point to which I wish to call the attention of the committee is that in evaluating Soviet priorities it is important to keep in mind that the Soviet Union is still No. 2 with respect to economic levels and is highly sensitive to the fact. Throughout its history one of the major objectives of Soviet policy in official pronouncements as well as in actual policy has been "overtaking and surpassing the United States."

This objective is far from attainment. It has been 50 years now, and the Soviets are somewhat closer but still from their own point of view an enormous distance behind what they must have imagined would be the shape of the future in 1917.

Therefore, in considering the alternatives for which the Soviets might wish to use their military resources I should say that the highest priority is this long postponed objective of seeing the Soviet economy at least rivaling the major capitalistic economies of the advanced world.

This is one priority which plays a role in Soviet decisionmaking but which doesn't have an equivalent in U.S. decisionmaking, I would suggest. The direction of our own economy is not governed to the same extent by what happens in the Soviet Union as Soviet policy is governed by what happens in the U.S. economy. And this gives us a measure of freedom, I will suggest in my conclusion, that is not available to the U.S.S.R.

The Soviets have a number of priorities which are similar to those of the United States in the sense that they deal with strictly domestic problems. They have both been referred to in Professor Bergson's paper. And I will just mention them here.

One is agriculture. I presented a few benchmark figures in my paper to provide a sense of the dimensions of the problem. Perhaps it can be summarized most pithily in the observation that during the 25 years of Stalin's reign per capita production of agricultural output actually declined. For half of the whole Soviet period agriculture took not only a second place but a remote second place.

Since the death of Stalin, agricultural output has been creeping up at a per capita basis of about 1 percent per year. I would guess that in the history of Western countries, and certainly developed countries, this intense backlog of agricultural need is probably unsurpassed. The pressures on the Soviets, on the Soviet leaders, the urge and desire to find resources for shoring up their lagging agriculture, are undoubtedly intense indeed.

The second area of national priority is the housing area. In conversations with Soviet citizens it has often been said, at least it used to

be said 10 or 15 years ago, that the housing problem is the one that presses most keenly on the daily life of Soviet people. There has always been enough to eat, though not very high quality food in terms of meats and protein-based foods, but there is enough to eat. And there has always been enough clothes. But the shortage of housing has been something that presses on the lives of the Soviet citizens day after day, a housing situation in which floor space per person is extremely low by international standards and by historic Soviet standards, in which several people are always crowded into a single room.

Again, just by way of a benchmark, as far back as the 1920's, at the time of the height of their aspirations for a Socialist society, the Soviets established as a minimum health norm, 9 square meters of floor space per person. At that time, the Soviets enjoyed a housing area of roughly 5.9 square meters per person. But this was an age of aspiration. By 1940, as a result of the rapid urbanization of the country—very similar, by the way, to the rapid urbanization of our own country since World War II—housing space per person fell to slightly over 4 square meters. In the years since World War II—and I should point out there was an enormous destruction of urban housing during World War II—housing per person has crept up slowly, but not until 1961 did floor space per person regain the level of 1926. That is a long time by historic standards for people to be crowded into the same per capita housing space.

In preparing for these hearings, when I reviewed the statistics on Soviet appropriations for housing, I was astonished to note that in 1961 housing appropriations declined absolutely, and in each of the successive 4-year appropriations for housing declined over the preceding year. Given the pressures on the Soviet Government in this high priority area, the decline in housing appropriations must have been a very bitter pill to swallow. Its causes, military or whatever, are one thing. But I would urge that this was no doubt a very difficult decision to make.

I would guess that these are the two major civilian-type priorities that the Soviets face.

In addition, there are other and perhaps dominating priorities. There is the one with which I began my remarks, a priority for which there is no real equivalent in the United States. And that is the intense urge to demonstrate that the Soviet socialist system has the competence to overtake and surpass the most advanced capitalist countries. It has been in the pursuit of this objective that the Soviets have maintained over these long years the extremely high rate of investment. And if one has a feel for the intensity with which this objective is held by the Russians, then the decline in the growth rate, which began around 1958, must also have been felt most keenly. It must have been the source of enormous concern. We have evidence for this in the intense search since the mid-1960's for new forms of economic organization which might help to shore up this sagging rate of growth.

I don't need to provide the statistics here. The staff of your own committee has provided most of the documentation. But the main point is that even since the recovery from the bad years of 1962 and 1963, the Soviets have been pushing ahead at a growth rate of roughly 1 percentage point higher than that of the United States.

What has happened since the heyday of the 1950's is that the Soviet growth rate has declined, and the U.S. growth rate has risen. The gap between them has declined to about 1 percentage point which, for a country that 50 years ago had as its long-term objective overtaking and surpassing the United States, is a very modest and depressing performance.

The urge for reform is accompanied by what are undoubtedly great pressures for increasing the rate of investment in order to try to maintain earlier rates of growth. There is some question, however, whether the rate of investment is enough. The search for new organizational techniques is intended in my view primarily to get at another source of growth which has been neglected by the Soviets in the past, that is, growth due to technological progress. It will take more than an increase in the rate of investment for the Soviets to manage to accelerate their rate of technological progress.

Let me now read my concluding paragraph, which is the summary. Military and space expenditures in the U.S.S.R., as in the United States, employ resources that are deflected from other highly pressing national needs. One class of such needs is the long-postponed rise in the living levels of the population, particularly in the areas of agriculture and housing. The other high-priority goal is the need to advance the long-term objective of gaining economic parity with the major capitalist countries, which requires heavy expenditures on investment. The urgency of these needs is not such that the Soviet leaders would neglect the nation's defense requirements in order to meet them. Nor is it such as to overcome the pressures to expand their strategic, military, and naval forces in support of their longer run foreign policy objectives. These pressures are likely to be dominating as long as the U.S.S.R. maintains military inferiority to the United States, both in general and in areas of particular strategic interest like the Mediterranean. But it does mean that the Soviet leaders—perhaps one should say some Soviet civilian leaders—may be expected to view with great alarm the prospect of future large increases of military and space expenditures for such reasons as the defense of the Chinese border, or war in the Middle East, or a major new escalation in nuclear weaponry.

This is not to say that the Soviet leaders are desperate for any form of arms control agreement. One can say, however, that because of their pressing national needs the Soviet leaders may be expected to be seriously interested in the prospect of a satisfactory arms control agreement.

This completes my testimony on Soviet priorities. I conclude with an observation on U.S. priorities, but I won't take the time of the committee to present it in my oral presentation.

(The prepared statement of Professor Berliner follows:)

#### PREPARED STATEMENT OF JOSEPH S. BERLINER

Last year the USSR entered the second half-century since the Bolshevik revolution. If Lenin were alive to celebrate that event, he would have had cause for both satisfaction and dismay. He would have been deeply satisfied with the economic attainments of the USSR compared to the poor agricultural nation over which he took power in 1917. He would have felt that the socialist form of economic organization had fully justified itself. But if he compared



the Soviet economic position with that of the advanced capitalist world, he would have been profoundly dismayed. For it was the most fundamental of Marxian tenets at the time that the days of capitalism were numbered. It would have been inconceivable to Lenin in 1917 that a half century later the capitalist world would continue to exhibit the vitality to maintain a vast lead in technological progress and economic growth.

I have chosen this introduction to call your attention to the long-run in considering Soviet priorities. Since 1917 the celebrated slogan of Soviet economic policy has been to "overtake and surpass the advanced capitalist countries." Soviet priorities have in fact always been formulated not solely in terms of some internal definition of social welfare, but with an eye on the economies of the U.S. and Western Europe. It is perhaps not an exaggeration to say that the sense of grave concern about the economy in the USSR today is due not to what has occurred in the USSR, but to what has occurred in the U.S. If the U.S. had followed the historical path of decline foreseen by Marxian theory, the recent slowdown in the Soviet growth rate may have been regarded as a normal phenomenon in a successful maturing socialist society. If there were no U.S., there would be no great economic reform in the USSR today, and no new search for a better form of socialist economic organization.

In both the U.S. and the USSR, military expenditures deflect resources from other pressing national needs. But because of this historic goal of overtaking the U.S., military expenditures place an additional burden on the USSR; for they slow down the rate at which the Soviets hope to narrow the gap between their own economy and ours.

I shall first discuss briefly Soviet national needs which are similar to those discussed in these hearings on American policy. I shall then turn to this special Soviet preoccupation with the margin of economic growth over that of the U.S.

If we were to select the highest priority national need in the U.S., a likely candidate is the elimination of poverty. In our affluent society, we may properly regard the elimination of poverty as a matter of redistributing income rather than as a matter of expanding production. And since the size of the so-called poverty-gap is only about \$15 billion, a modest deflection of military expenditures could readily cut to the heart of the poverty problem. In the USSR, perhaps the highest priority need is the expansion of agricultural output. This, however, is a problem of production rather than of redistribution. And its dimensions are such that it is not as easily solvable as the problem of poverty in the U.S. If a political leader had his choice of economic problems, he would be wiser to choose to cope with poverty in the U.S. than agriculture in the USSR.

The present difficulties of Soviet agriculture have their origin in an earlier period. Between 1928, when the modern planning period began, and 1953, when Stalin died, gross output of agriculture grew by only 10%.<sup>1</sup> During that same period the Soviet population grew by 25%.<sup>2</sup> Hence per capita agricultural output at the end of that quarter-century was substantially lower than at the beginning. From 1953 to 1959 the post-Stalin leadership by a series of extraordinary measures, managed to recover some of the lost ground; agricultural output grew at about 5.8% per annum,<sup>3</sup> while population grew at 1.8% per annum.<sup>4</sup> Many of those measures were of a one-time nature, however, like the incorporation into production of a large new area of virgin lands. Once these measures were exhausted, the rate of growth settled back to what may be regarded as a more normal level. From 1959 through 1967 agriculture has expanded at about 2.6% per annum,<sup>5</sup> while population has grown at about 1.4% per annum.<sup>6</sup> At these rates, per capita agricultural output is advancing at little more than 1% per year. Since agriculture-based commodities like food and clothing are a large component of Soviet consumption, the slow growth of per capita agricultural

<sup>1</sup> D. Gale Johnson, "Agricultural Production," in A. Bergson and S. Kuznets, *Economic Trends in the Soviet Union* (Harvard Press: Cambridge, 1963), p. 210.

<sup>2</sup> Abram Bergson, *The Real National Income of Soviet Russia Since 1928* (Harvard Press: Cambridge, 1961), p. 442.

<sup>3</sup> *New Directions in the Soviet Economy*, U.S. Joint Economic Committee, 89th Congress, 2nd Session (GPO: Washington, 1966), p. 346.

<sup>4</sup> Bergson, p. 442.

<sup>5</sup> *Soviet Economic Performance, 1966-67*, U.S. Joint Economic Committee, 90th Congress, 2nd Session (GPO: Washington, 1968), p. 28; also *New Directions*, p. 346.

<sup>6</sup> *Soviet Economic Performance*, p. 51.

output is a severely binding limitation on the ability of the Soviet leaders to raise the living levels of their people.

Part of the explanation of the slow growth of agriculture is to be found in organizational problems. But a large part of the explanation is to be found in the limited supply of non-labor resources allocated to agriculture. Consider, for example, the fact that Soviet farmers cultivate a cropland area 71% greater than that of the U.S., with over seven times as much manpower as in the U.S. But they cultivate this larger area with only 34% of the number of tractors used in the U.S., 33% of the trucks, 60% of the grain combines, 62% of the commercial fertilizers, and 80% of the electric power used in American agriculture.<sup>7</sup> A more rapid expansion in agricultural output will require a more rapid expansion of these industrial inputs into agriculture. It is precisely here that military expenditures conflict with this highest priority national Soviet need. For budgeted military expenditures in 1968 amounted to 16.7 billion rubles, while gross fixed investment in agriculture in 1967 was 10.4 billion rubles.<sup>8</sup> A reallocation of expenditures from military to agriculture could contribute substantially toward the promotion of this pressing national need.

We do not know very much about how such issues of national priority are debated and resolved in the Kremlin. But we have indirect evidence that the case for expanded agricultural investment is being vigorously promoted, to the point that a Politburo member has taken the rare step of publicizing his disagreement with a decision to cut agricultural investments.<sup>9</sup>

Turning to the second item on the list of national needs in the U.S. we might well point to the issue of urban blight, which is not unrelated, of course, to the first priority issue of poverty. Curiously enough, the second item on the Soviet list would very likely also be the housing problem.

One of the sources of the present-day American problem of urban blight and urban poverty is the large-scale rural-to-urban migration during World War II and afterward. Our cities have not managed to plan for or cope with the vast social and economic adjustments required for so large a population migration. The USSR in the 1930's underwent a similar but much more rapid and extensive rural-to-urban migration. The consequence was a sharp deterioration in urban housing and living conditions, which was further aggravated by the extensive housing destruction in World War II. In the 1950's Soviet citizens often expressed the view that the poor condition and crowdedness of housing was the single most difficult aspect of material welfare in their country.

The benchmark in evaluating Soviet housing conditions is the figure of 9 square meters of floor space per person, which was officially adopted in the 1920's as the minimal health standard. The census of 1926 reported that the actual housing space amounted to 5.85 square meters per person. By 1940, as a result of the rapid urbanization, the figure declined to 4.34 square meters per person. As a result of massive expenditures in the post-war period, the decline in per capita housing space was finally arrested, and the figure began to rise, which contributed to a sense of rising welfare, particularly in the 1950's. But the rise was nevertheless slow, so that not until 1961 when per capita floor space reached the level of 5.91 square meters, was the 1926 level at last regained. In that year the Soviet urban population lived 2.72 persons to a room, compared to 2.60 persons per room in 1923, and compared to the accepted maximum of 1.5 persons per room in the U.S. and Western Europe.<sup>10</sup>

Given this long history of deprivation, one can only imagine the tension associated with the decision in 1961 to reduce absolutely the allocation to housing construction below the level of 1960, by about 5%. And in each of the subsequent three years the housing allocation was again reduced below the preceding year. Not until 1966 did the housing allocation regain the level of 1960. Housing does not compete with military expenditures alone, of course, but with all other possible uses of the nation's production including agriculture. But again, a reduction in military expenditures, which were budgeted at 16.7 billion rubles in 1968, would go a long way toward shoring up the housing investment allocation which presently stands at a level of about 9 billion rubles.<sup>11</sup>

Agriculture and housing are the two major national economic needs that compete with military expenditures. But if military spending were reduced, it is not

<sup>7</sup> *Ibid.*, p. 31.

<sup>8</sup> *Ibid.*, pp. 42, 47.

<sup>9</sup> *Ibid.*, p. 5.

<sup>10</sup> *New Directions*, pp. 540-546.

<sup>11</sup> *Soviet Economic Performance*, p. 42.

certain that all or most of the resources saved would be re-allocated to those uses. For there remains the other dominating national priority I referred to earlier—the goal of closing the gap between the Soviet economy and those of the major capitalist countries. The pursuit of this goal requires expanding investment in the heavy industry sector, particularly machinery and equipment manufacturing. The long-run goal of expanding the heavy industrial capital stock conflicts with the shorter-run goals of relieving the agricultural and housing needs of the nation.

This is the context in which we must view the recent decline in the Soviet growth rate. For the greater the margin of Soviet growth over U.S. growth, the more satisfactory is the rate of attainment of the long-run goal, and the more likely are the Soviet leaders to reallocate resources from heavy investment to such competing uses as agriculture, housing and military. However, the margin of Soviet over U.S. growth has been closing rather than widening in recent years. In the period 1950–1958, Soviet GNP grew at an annual rate of 7.1%, compared to 2.9% in the U.S., an impressive difference of 3.2 percentage points. In the period 1959–1964, Soviet growth fell to an annual rate of 5.3%, while U.S. growth rose to 4.4%.<sup>12</sup> The Soviet margin declined to less than one percentage point, a sharp blow to the long-run goal of economic parity with the U.S. But the Soviet decline in those years was heavily weighted by a succession of poor harvests. In the most recent period of 1965–1967, Soviet growth has recovered somewhat to the level of 5.9% per annum, but U.S. growth has also risen to 4.8%.<sup>13</sup> Hence the margin of Soviet advantage is now running at slightly above one percentage point, not substantially different from the preceding six years.

The evidence is fairly clear that the Soviets have been falling behind in the attainment of their highest-priority long-term goal. Two sets of factors have been at work. On the one hand, certain advantages available to them two decades ago were no longer available in the present decade, and their growth rate has consequently declined. On the other hand the periodic recessions which plagued the U.S. two decades ago have been eliminated, and in the present decade our own growth rate has risen closer to our potential. Both sets of factors are likely to continue into the next decade, and it is reasonable to expect that the margin of Soviet growth over that of the U.S. will continue at the level of about one percentage point.

This is a highly unsatisfactory state of affairs for the Soviet leaders, and may be expected to generate great pressure for the expansion of investment. And the magnitudes are such that a reduction in military expenditures could make a massive impact on heavy industry investment. In 1967 heavy industry investment amounted to about 17 billion rubles compared to 1968 budgeted military expenditures of 16.7 billion rubles.<sup>14</sup>

A sharp increase in investment, at the expense of military or other expenditures, may be expected to raise the Soviet growth rate. But it should be noted that Soviet growth has suffered from factors other than the limits on investment resources. I refer in particular to the extensive evidence of a decline in the efficiency with which the economy uses its investment and other resources. A central component of this decline is the management of technological progress. It appears that as modern economies advance, their continued growth depends less on the mere accretion of additional machines and additional labor, and more on the higher quality of the new machines and the new labor—in a word, on the rate of technological progress. Soviet leaders continue to express grave concern at the unsatisfactory rate of technological progress, and the present-day economic reforms are designed in large measure to find new economic arrangements that will encourage technological progress more successfully than in the past. This may prove to be a very difficult thing to do. If so, the pressure for increasing investment will be all the greater in order to offset deficiencies in the technological quality of new investment.

Summarizing, military (and space) expenditures in the USSR, as in the U.S., employ resources that are deflected from other highly pressing national needs. One class of such needs is the long-postponed rise in the living levels of the

<sup>12</sup> *New Directions*, pp. 105–106.

<sup>13</sup> *Soviet Economic Performance*, p. 12.

<sup>14</sup> *Ibid.*, pp. 42, 47.

population, particularly in the areas of agriculture and housing. The other high-priority goal is the need to advance the long-term objective of gaining economic parity with the major capitalist countries, which requires heavy expenditures on investment. The urgency of these needs is not such that the Soviet leaders would neglect the nation's defense requirements in order to meet them. Nor is it such as to overcome the pressures to expand their strategic, military and naval forces in support of their longer-run foreign policy objectives. These pressures are likely to be dominating as long as the USSR maintains military inferiority to the U.S., both in general and in areas of particular strategic interest like the Mediterranean. But it does mean that the Soviet leaders—perhaps one should say some Soviet civilian leaders—may be expected to view with great alarm the prospect of future large increases of military (and space) expenditures for such reasons as the defense of the Chinese border, or war in the Middle East, or a major new escalation in nuclear weaponry. This is not to say that the Soviet leaders are desperate for any form of arms control agreement. One can say, however, that because of their pressing national needs, the Soviet leaders may be expected to be seriously interested in the prospect of a satisfactory arms control agreement.

Senator Proxmire invited me to discuss "Soviet economic potential in the context of its social, political and military priorities." In ruminating on the question, I have had occasion to think a bit about U.S. priorities as well, and I am moved to offer a concluding observation. Soviet national income is roughly half that of the U.S., and per capita consumption is roughly a third of the U.S.<sup>15</sup> Though they are relatively poorer than the U.S., the Soviets nevertheless seek to attain absolute parity with the U.S. in military posture, in space, and in level of national product. Hence the conflict between these latter goals and other national needs is very much sharper in the USSR than in the U.S. Or put the other way round, the U.S. does not need to consider its other high national priorities to be as keenly competitive with military and space spending as the Soviet Union needs to. With our much greater wealth, we can attend to more of our national needs at once than the Soviets can.

Yet we have gotten into the habit of thinking that elimination of poverty and urban blight must be delayed because of our military and space expenditures; much as Soviet agricultural and housing needs must wait their turn behind other priority needs. I wish to urge that while for the Soviets this competition among different uses of the national product is very real, for us it is not nearly as real, and the habit of thinking it to be real has been a major source of civil strife in our country.

In three weeks our nation will have succeeded in landing a man on the moon. Yet there are millions in this country, including a great mass of our college students, who will view the event not with awe but with disgust. For they are unable to close their eyes, even for a day, to the facts documented in this very Congress, of starving American children in many of our states, and rat-infested slums amidst elegant suburbs, comfortable universities and industrial office palaces.

While all the uses of our national product are in a sense competitive with each other, no one use is necessarily competitive with any other. We can have both guns and butter if we are willing to give up power boats and tourism abroad. I wish therefore to propose that we cease the practice of regarding military and space expenditures as competitive with the elimination of poverty and urban blight. We might do this by adopting what may be called a National Priority Matching Program, in which every additional tax dollar appropriated for military and space would be matched by an additional dollar appropriated for the elimination of poverty and urban blight, while every dollar's reduction in military and space spending would also be re-appropriated for the elimination of poverty and urban blight. Only by some such binding program can we be sure that when the pressures for inter-planetary space exploration mount, as they already have begun to do, our national glory will not be purchased at the cost of our national disgrace.

Chairman PROXMIRE. Thank you, Professor Berliner.  
Professor Hunter?

<sup>15</sup> *Ibid.*, pp. 16, 92.

STATEMENT OF HOLLAND HUNTER, PROFESSOR OF ECONOMICS,  
HAVERFORD COLLEGE

Mr. HUNTER. Thank you, Senator Proxmire.

The subject of these hearings is an extremely important one. I therefore feel a great responsibility to be as accurate and thoughtful as possible in responding to the subcommittee's questions. To that end I have prepared a short memorandum on Soviet uses of output, 1960 to 1974. The opening section presents a summary and conclusions.

Section II discusses the underlying statistical estimates and section III offers four hypothetical projects for the next 5 years. The final section deals with some possible policy implications. My hope is that this material will be vigorously criticized by the other members of the panel, and that our discussion will contribute to the committee's reflections.

SOVIET USES OF OUTPUT, 1960-74

I. SUMMARY AND CONCLUSIONS

This report presents rough estimates for total Soviet output, year by year from 1960 through 1968, together with plan targets for 1969 and four hypothetical alternatives for 1970-74. The economy's total output is divided each year into investment, defense, and all other uses—mainly consumption. While the figures are very approximate, they appear to give a reliable indication of orders of magnitude, since their structure is stable under experiments with alternative estimating approaches.

Soviet output has been growing at 6 percent or 7 percent per year during the 1960's. The reduced growth rate of 1962-63 has not persisted. The GNP growth rate of the 1960's represents a slowdown only in comparison with the very high growth rate of 1947-58. Even assuming that corrected data eventually disclose some Soviet exaggeration for the last few years, it appears that recent Soviet GNP growth has been at least as rapid as U.S. growth in real terms since 1961.

Chairman PROXMIRE. You are not talking about percentage, you are talking about real growth, absolute growth?

Mr. HUNTER. Real, corrected for price changes.

Chairman PROXMIRE. In absolute terms, is that correct?

Mr. BERGSON. Or percentage terms.

Mr. HUNTER. I meant percentage terms.

Chairman PROXMIRE. Percentage terms; all right.

Thank you.

Mr. HUNTER. The high rate of Soviet output growth reflects a high share of capital investment in each year's GNP. Rapid future growth will require continuation of a high investment/output ratio. This means that national security outlays compete, among major Soviet priorities, not only with consumption but also with investment. It's not just "guns versus butter," but "guns versus butter versus a larger pie in the future." During the 1960's, in fact, the "larger pie" took about three times as much output as defense did. In the short run, as a result, a marked slowdown in Soviet output growth would free re-

sources either for larger defense outlays or for immediate consumption increases.

Under present conditions, Soviet defense outlays can either rise or fall. Defense cuts would permit more consumption and facilitate output growth. But a new spurt in the arms race would not need to halt growth or lower Soviet living standards. Defense outlays over the next 5 years could more than double while permitting consumption to grow by one-fifth to one-third. Plausible defense cuts, on the other hand, would serve the Soviet national interest by facilitating continued rapid economic growth, together with a rise in consumption of something like 50 percent in the next 5 years.

United States defense outlays produce no net gain in national security when they are offset by equivalent Soviet defense outlays. The principle also applies in reverse: reduced U.S. arms spending would not reduce national security if it were matched by verified Soviet reductions. Reduced outlays would, however, release resources for other high-priority uses, which suggests that arms reduction negotiations should have the highest priority of all.

## II. THE UNDERLYING ESTIMATES

I turn now to an explanation of how these output estimates were compiled, and a brief discussion of what they show about the Soviet economy. It should be acknowledged immediately that the estimates yield only orders of magnitude, for three reasons: (1) they are highly aggregated total of somewhat uncertain coverage and composition; (2) they cover recent years, for which only preliminary figures are available, and extend into the future; and (3) most importantly, they touch on Soviet defense outlays, making use of extremely fragmentary evidence. You are asking today about the most mysterious part of the Soviet economy. A conscientious economic analyst faces a dilemma in trying to respond. The absence of published Soviet data makes it impossible to be precise, and difficult to be firm, even about rough approximations. But legislators and policymakers are right to press for indications of orders of magnitude, and that is what these estimates supply.

Three considerations suggest that trends in the size of Soviet output and its major components during the 1960's can be fairly reliably discerned. The first is that painstaking Western research over the last 20 years has made it possible to put official Soviet data into a Western analytic framework. Official Soviet series for years up to 1964 or 1966 can be compared with independently compiled series whose theoretic basis and statistical underpinning are well understood. Experiment shows that over the last 15 years or so these series move very closely together.

Secondly, a major new study by Abraham S. Becker, to be published next month,<sup>1</sup> compiles Soviet national accounts data on an adjusted factor costs basis up through 1964, thus providing some structural benchmarks for the series compiled here. The third factor to be con-

<sup>1</sup> *Soviet National Income, 1958-64: National Accounts of the U.S.S.R. During the 7-Year Plan Period* (Berkeley and Los Angeles: University of California Press, 1969).

sidered is the fairly regular and parallel way in which major components of Soviet output have grown over the last 10 or 15 years.

Alternative weights don't make much difference. Proportions are not decisively changed by refinements in compilation. In a growing economy with a stable structure, all aggregate series tend to move smoothly, and broad trends are thus fairly unambiguous.

Table 1 presents some illustrative estimates of this sort. The figures are in billions of Soviet rubles "at 1964 valuation." They reflect a crude effort to use internal Soviet relative valuations, adjusted to a factor costs basis, for a year in the center of the period under examination. The official Soviet figure for 1964 national income at current prices is extended backward to 1960 and forward to 1969 by means of the new official index for national income "used for consumption and investment." This series moves closely with Western estimates for Soviet GNP in constant prices. The official Soviet figures for fixed investment "in comparable prices" and for budgeted defense outlays in 1964 are adjusted upward so that investment is 33 percent and defense is 10 percent of the 1964 national income. These are the shares that emerge from a careful reconstruction by Abraham S. Becker in his new study. Then the official figures for investment and defense outlays in earlier and later years are adjusted upward by the same proportion. The resulting absolute annual estimates permits subtraction of a residual showing what was available in each year for all other uses.

(Table 1 follows:)

TABLE 1.—SOVIET GROSS NATIONAL PRODUCT, BY YEAR, 1960-68 AND PLAN 1969. DIVIDED INTO FIXED INVESTMENT, DEFENSE, AND ALL OTHER USES, IN BILLIONS OF RUBLES AT 1964 VALUATIONS.

	Total GNP	Investment	Defense	Balance
1960.....	145.0	47.7	12.7	84.6
1961.....	153.7	49.8	15.8	88.1
1962.....	161.0	52.2	17.2	91.6
1963.....	166.8	54.9	18.9	93.0
1964.....	181.3	59.8	18.1	103.4
1965.....	192.9	64.7	17.4	110.8
1966.....	207.4	69.6	18.3	119.5
1967.....	221.9	75.3	19.8	126.8
1968.....	237.9	81.7	22.8	133.4
1969 plan.....	253.8	86.6	24.1	143.1

Sources: The 1964 "total GNP" figure is the Soviet figure for net material product in current prices, from TsSU, *Narodnoe khoziaistvo SSSR v 1967 g.* (1968), p. 671. Absolute data for 1960-63 and 1965-67 are obtained through applying the index values for national income "used for consumption and accumulation" (i.e., excluding capital losses and net foreign balance—see *ibid.*, p. 920), given in a footnote on p. 671. The fixed investment series "at comparable prices" for 1961-67 on p. 613 is raised by 1.329, the ratio of 59.8 (33 percent of 181.3) to 45. The 1960 investment figure is from *Narkhoz 1965*, p. 528. The 1960-65 state budget defense item is taken from *Min. Fin., Gos. bjudzhet SSSR* (1966), p. 21; 1966-67 figures are from *Narkhoz 1967*, p. 886. The whole series is raised by 1.361, the ratio of 18.1 (10 percent of 181.3) to 13.3. 1968 results and 1969 plan targets are from V. F. Garbuzov in *Pravda*, Dec. 11, 1968, p. 4, translated in *CDSP*, vol. XX, No. 51 (Jan. 8, 1969), p. 4; N. K. Baibakov in *Pravda*, Dec. 11, 1968, p. 1, translated in *CDSP*, vol. XX, No. 50 (Jan. 1, 1969), p. 5 and *Pravda*, Jan. 26, 1969, p. 2, translated in *CDSP*, vol. XXI, No. 4 (Feb. 12, 1969), p. 7.

Table 2 shows the annual percentage increases in total output and in each component, along with the relative claim that each end-use exerted. A striking degree of stability is evident. Given the crudity of the estimating procedure, year-to-year changes should not be considered significant. It has been true from 1960 to date that fixed investment received about one-third of each year's output, and national defense about one-tenth, leaving between 55 and 60 percent for all other uses.

(Table 2 follows:)

TABLE 2.—PERCENT SHARES AND ANNUAL PERCENT INCREASES FOR SOVIET GNP AND ITS MAJOR COMPONENTS BY YEAR, 1960-PLAN 1969

PERCENT SHARES									
	Total GNP	Investment	Defense	Balance		Total GNP	Investment	Defense	Balance
1960.....		32.9	8.8	58.3	1965.....		33.5	9.0	57.5
1961.....		32.4	10.3	57.3	1966.....		33.6	8.8	57.6
1962.....		32.4	10.7	56.9	1967.....		33.9	8.9	57.1
1963.....		32.9	11.3	55.8	1968.....		34.3	9.6	56.2
1964.....		33.0	10.0	57.0	1969 plan.....		34.1	9.5	56.4

ANNUAL PERCENT INCREASES									
	Total GNP	Investment	Defense	Balance		Total GNP	Investment	Defense	Balance
1961.....	6.0	4.4	24.4	4.1	1966.....	7.5	7.6	5.2	7.9
1962.....	4.7	4.8	8.9	4.0	1967.....	7.0	8.2	8.2	6.1
1963.....	3.6	5.2	9.9	1.5	1968.....	7.2	8.5	15.2	5.2
1964.....	8.7	8.9	-4.2	11.2	1969 plan....	6.7	6.0	5.7	7.3
1965.....	6.4	8.2	-3.9	7.2					

Source: Derived from table 1.

The 10-percent share of defense in Soviet output reflects Soviet valuations and seems to be an upper limit. Abraham Becker's detailed analysis puts the share of explicit defense expenditure in GNP at current adjusted factor costs around 5.8 to 7.3 percent over the 1958-64 period. The other 3 to 4 percentage points reflect my generous allowance for defense-related outlays—for example on research and development, and internal security—hidden elsewhere in Soviet accounts. If exhaustive data were available, they would no doubt show annual fluctuations different from those in my crude aggregate series. Valuation procedures using different price weights could also show a larger defense share; computations using "1937 prices," drawing on recent Becker-Moorsteen-Powell estimates, raise the defense share to a range between 14 and 19 over this period. A major policy conclusion is nevertheless inescapable; massive Soviet military power now exists on the basis of a share of national output that has been small enough to be accompanied by rapid economic growth and rising living standards.

Table 3 shows that there does not appear to have been any marked change in allocation policy if one compares the last 5 years of the Khrushchev era with the 5 years up to the present. Total output appears to have grown slightly more rapidly since 1964, and there may have been a very slight rise in investment's share of total output, matched by a slight fall in the defense share, but the margin of error in these estimates is such that minute changes of this kind cannot yet be firmly established.

(Table 3 follows:)

TABLE 3.—5-YEAR TOTALS FOR SOVIET GNP AND COMPONENTS, 1960-64 AND 1965-69 PLAN, IN BILLIONS OF RUBLES AT 1964 VALUATIONS

	Total GNP	Investment	Defense	Balance
1960-64.....	807.8	264.4	82.7	460.7
1965-69 plan.....	1,113.9	377.9	102.4	633.6
Percent shares:				
1960-64.....		32.7	10.3	57.0
1965-69 plan.....		33.9	9.2	56.9
Average annual growth rates:				
1960-64.....	5.7	5.8	9.3	5.1
1965-69 plan.....	7.0	7.7	5.9	6.7

Source: Derived from table 1.



Table 4 brings out some interesting relations between the share of each year's output going to investment and the associated annual output increases. While investment is by no means the only cause of output growth, there is a broad relationship between them that figures in much economic thinking. If 15 percent of GNP goes into capital formation, for example, and it takes \$3 of capital plant and equipment to generate an additional dollar of output, we teach that output can grow by 5 percent. Table 4 shows that during the 1960's the U.S.S.R. has been putting about a third of its GNP into fixed investment, and obtaining an annual output increase of 6 to 7 percent. Neglecting the distinction between gross and net investment, we can see that the incremental investment/output ratio has varied from a high of 9.1 in 1963 to a low of 3.8 in 1964, averaging around 5 over the whole decade. It was high when output growth was undermined by a bad harvest and low in the following recovery year.

(Table 4 follows:)

TABLE 4.—ANNUAL RELATIONS BETWEEN SOVIET GNP GROWTH AND FIXED INVESTMENT, 1961—PLAN 1969

Year	Annual percent increase in GNP	Percent share of investment in GNP	Incremental investment/output ratio
1961	6.0	32.4	5.4
1962	4.7	32.4	6.9
1963	3.6	32.9	9.1
1964	8.7	33.0	3.8
1965	6.4	33.5	5.2
1966	7.5	33.6	4.5
1967	7.0	33.9	4.8
1968	7.2	34.3	4.8
1969 plan	6.7	34.1	5.1
1961-64 average	5.7	32.7	5.7
1965-69 plan average	7.0	33.9	4.8

Generally, however, the ratio was fairly stable. It can thus suggest benchmarks for some tentative projections, to which we now turn.

### III. HYPOTHETICAL PROJECTIONS FOR 1970-74

Forecasting is hazardous, even when a stable mechanism has been performing with regularity. Current reports suggest, for example, that a poor Soviet harvest is impending, so 1969 may be a bad year for the Soviet economy. Nevertheless, one can illustrate rigorously the consequences of various assumed trends and thus illustrate the dimensions of alternative possible developments. Table 5 displays four hypothetical possibilities. The first two assume that Soviet output will continue to grow rapidly, at 7 percent annually from 1970 through 1974. The resulting 5-year total is shown, divided into its three major components, and compared with the estimated 5-year total for the previous period, 1965-69. The first high-growth projection also assumes that arms control negotiations lead to mutual cutbacks. Out of thin air, I assume that the estimated 1969 Soviet defense outlay is reduced by one-tenth in each of the next 5 years, so that in 1974 it is half its 1969 absolute size. The result would be to make the 5-year defense outlay total almost 18 percent lower than the 1965-69 total. If the incremental investment/output ratio fell slightly to 4.5, the investment

share of output could fall slightly to 31.5 percent. Under these conditions, the balance available for all other uses would rise by over 50 percent and Soviet living standards could be greatly improved.

Suppose, on the other hand, that Soviet authorities felt it necessary to constrain the nondefense, noninvestment share of output to 55 percent. Then with high growth, defense could take 13.5 percent of total output and the absolute volume of defense outlays could rise by 106 percent, that is, more than double.

This prospect is labeled "grim."  
(Table 5 follows:)

TABLE 5.—HYPOTHETICAL SOVIET DEVELOPMENTS, 1970-74, UNDER 4 ALTERNATIVE ASSUMPTIONS  
HIGH-GROWTH, MILD (7-PERCENT GNP GROWTH; IIOR OF 4.5; 5 10-PERCENT DEFENSE CUTS)

	GNP	Investment	Defense	Balance
Absolute totals.....	1,561.7	491.9	84.4	985.4
Percent shares.....		31.5	5.4	63.1
Percent increases.....	40.2	30.2	-17.6	54.4
HIGH-GROWTH, GRIM (7-PERCENT GNP GROWTH; IIOR OF 4.5; BALANCE SHARE CUT TO 55 PERCENT)				
Absolute totals.....	1,561.7	491.9	210.9	858.9
Percent shares.....		31.5	13.5	55.0
Percent increases.....	40.2	30.2	106.0	34.6
LOW-GROWTH, MILD (4-PERCENT GNP GROWTH; IIOR OF 7; 5 10-PERCENT DEFENSE CUTS)				
Absolute totals.....	1,429.7	400.3	84.4	945.0
Percent shares.....		28.0	5.9	66.1
Percent increases.....	28.4	5.9	-17.6	48.0
LOW-GROWTH, GRIM (4-PERCENT GNP GROWTH; IIOR OF 7; BALANCE SHARE CUT TO 55 PERCENT)				
Absolute totals.....	1,429.7	400.3	243.1	786.3
Percent shares.....		28.0	17.0	55.0
Percent increases.....	28.4	5.9	137.4	23.2

The two lower sections of table 5 illustrate a pair of hypothetical developments on the assumption that Soviet output grows slowly, at an average annual rate of 4 percent. Even if this reduced rate of growth is associated with an incremental investment/output ratio that rises to 7 for the whole 5-year period, it would require only 28 percent of output for investment. Under these conditions, if there were a defense cut that reduced the defense share of total output to 6 percent, the balance available for all other uses would rise by almost 50 percent and public well-being could be substantially improved. This is the "low-growth, mild" variant.

Finally, the bottom panel shows that if the share of other uses in Soviet output is held down to 55 percent, and if the investment share drops to 28 percent, the defense share could rise to 17 percent. Even with low growth, the result would be an increase of 137 percent in defense outlays, providing ample fuel for several laps in an arms race. The rise in annual investment would fall markedly behind the rise in GNP, and future growth would be imperiled. This prospect seems unlikely. One can visualize Soviet policymakers fending it off by shifting

resources from other uses toward investment, as long as the Soviet public's morale was not impaired by negligible annual gains in per capita living standards.

#### IV. POSSIBLE POLICY IMPLICATIONS

These crude projections illustrate the major tradeoffs that confront policymakers in Moscow, much as similar tradeoffs are confronted in Washington. It is clear that Soviet opportunities are very sensitive to the rate of output growth. If the Soviet GNP continues to grow rapidly, there will be room for both more guns and more butter. Even with reduced growth, somewhat more butter and a lot more guns can be had, if the system's directors are willing to imperil future growth.

If we assume that Soviet authorities will not abandon their high-growth objectives, and assume further that the Soviet public's morale would suffer from a sharp check to the rise in their living standards, several conclusions follow. First, it is evident that an arms freeze would benefit the Soviet economy, and that a reduced level of defense outlays would be even more attractive.

Secondly, it seems obvious that since an arms freeze or reduced defense outlays by the United States would be similarly useful for U.S. purposes, the U.S.S.R. and the United States have a joint interest in halting and reversing the arms race. Arms outlays have a remarkable feature which distinguishes them from most other forms of expenditure. When the Congress appropriates funds for national security, the resources utilized have value only in relation to the simultaneous outlays being made by other countries. The value of American expenditures can be offset by the expenditures of other countries. The security that the United States tries to purchase with another \$10 billion of defense appropriations can be completely nullified by equivalent Soviet outlays, so that neither nation is any more secure than before.

Fortunately, the same principle works in reverse. If the Congress reduces military appropriations by \$10 billion, and an equivalent reduction is negotiated by the U.S.S.R., the national security of each side need not be diminished. In some respects it could even be improved. The U.S.S.R., for example, might feel better able to organize its eastern defenses if suitable arms reduction steps were arranged with the United States.

While mutual and balanced lowering of defense outlays by the U.S.S.R. and the United States would not reduce the national security of either side, it would release resources for other uses, and this would be pure gain. We all know how badly these resources are needed for peaceful uses here at home, and the computations set forth above show how similar resources could be put to use in the U.S.S.R.

Of course, the joker here has been that neither side has trusted the other enough to engage in an arms reduction program with adequate assurances that reductions are being carried out. Secrecy has been an important part of national defense, especially for the Russians. But I wonder if the urgent claims of other high priorities in both countries aren't changing the situation. A patriotic and hard-headed legislator could now ask if more national security, not less, couldn't emerge from a well-policed arms reduction program—more security than would be obtained from a new missile standoff after defense outlays

have risen on each side another \$10 billion or \$20 billion worth. The sooner a balanced arms reduction program can be negotiated and launched, the sooner genuine net gains in national security and well being can be obtained by both countries.

There is still another, rather bleak, conclusion that can be drawn from the present structure of Soviet capabilities and priorities. There is no use thinking that Soviet authorities can be deterred from keeping up with U.S. defense efforts by an inability to draw the necessary resources away from investment or consumption. Soviet military power has grown simultaneously with these other uses and can continue to do so. The United States cannot make the U.S.S.R. "spend itself into bankruptcy," nor is it easy to visualize a U.S. spending program that would induce Soviet defensive responses sufficient to bring Soviet consumers out against the regime. Such a U.S. policy would most likely unite the Soviet people behind their Ministry of Defense.

A reversed direction for arms spending seems far more sensible to me as an economist, as a citizen of the United States, and as an observer of Soviet affairs. If it is clear to the Congress that reduced defense spending would serve U.S. purposes, and a similar finding applies to the U.S.S.R. then the very highest priority attaches to negotiations for arms control and reduction. Both economies need less military spending. Both societies would gain from less military spending. For years now the two Governments have responded to each other's defense outlays, clumsily and unproductively, with no net benefit to either people. Perhaps this hearing on the military budget and national economic priorities can serve to hasten the day when mutual reduction in the United States and Soviet military budgets will permit peaceful priorities to rule in both countries.

Chairman PROXMIRE. Professor Kintner, I introduced you in your absence, but I will repeat it. I pointed out that you are deputy director of the Institute of Foreign Relations at the University of Pennsylvania. You are a former army colonel. You have recently released publications on strategic Soviet development which stressed the growing danger of Soviet strategic superiority.

And we are happy to have you here.

#### **STATEMENT OF WILLIAM R. KINTNER, PROFESSOR OF POLITICAL SCIENCE, UNIVERSITY OF PENNSYLVANIA**

Mr. KINTNER. I have notes from which I would speak, since I didn't have time to prepare a statement in detail.

I would like to say that I enjoyed the presentation I just heard. I agree with Dr. Hunter's economic analysis almost without exception, though I would perhaps draw different conclusions from it.

I am not a Sovietologist nor an economist, but I have studied Soviet strategy for many years and the reaction between the United States and Soviet strategies.

What I would like to do is present some thoughts concerning the rationale underlying the Soviet allocation of their economic resources, and to do so by trying to set forth some principles which inspire the Soviet leaders to allocate their total national resources in a markedly different fashion than we do ours.

First, despite the many changes that have taken place in Marxist-

Leninist ideology since the Soviet Union came into being in 1917, the Soviet leaders today still claim to be Marxists, and I believe they are. They believe, going back to Karl Marx himself, that changes in the means of production affect the political order, and that in the present day the society which masters the contemporary mode of production will master the political order. Today the Soviet leaders are keenly aware of the scientific technological revolution that is transforming the global political system, and are making a determined effort to achieve general superiority in those areas of science and technology which affect their capacity to exercise national power.

Second, Soviet leaders are trained by their own philosophy to think dialectically. I remember talking to Wolfgang Leonard some months ago who wrote the very fascinating book, "Child of Revolution," who at the age of 29 left the Communist Party in East Germany. I asked him how much time he had devoted to the study of the dialectic. He said in the higher party school in which he was a student, all the time. And he was there for 3 years.

The dialectic reflects certain world views which we must understand. The first is that stability is not part of the world environment, but instead constant change and struggle.

Communists believe that conflict between their system and what they call the capitalist-imperialist system is inescapable, regardless of the form the conflict might take.

There have been variations in this theme. Malenkov at one time believed that the nuclear weapons had changed this, that the nuclear weapons could destroy both socialism and capitalism.

Khrushchev, modified this by saying that in the present day a nuclear war is not necessarily inevitable, because at a certain time the capitalists will understand that the objective factors no longer favor them, and will therefore reach an agreement along the lines dictated by the Communist leadership.

Recently, however, the political commissar of the Soviet forces, the man who played a very instrumental role in the "Doctor's Plot" of 1953, said that Lenin's prediction that in the historical period of change from Communism to capitalism there will be armed struggle, still holds, and that after a nuclear war there would arise the conditions for the building of socialism and communism. I point this out because of his statement was published in *The Communist*, which is the official journal of the Communist Party of the Soviet Union, just about a month ago.

Consequently, because of this dialectical point of view, and their recognition or their belief that conflict is endemic to human society, they have always devoted a high percentage of their resources to obtain the military forces and arms which they believe to be essential to the protection of the Soviet base. That has led them to create what Oscar Lange, who was an economist and a political scientist, described, in 1957, as a *sui generis* war economy. Consequently their allocations are made centrally according to priorities derived from the Marxist-Leninist dialectical training of Soviet leaders. At the top of the list almost throughout the entire period of Soviet history comes heavy industry, military hardware, scientific and technological capabilities, which have been associated with a concomitant commitment to education, particularly in the physical sciences and in mathematics. Agri-

culture, transportation, and housing have always been at the bottom of their priorities scale.

As to consumer goods, until 10 or 15 years ago they were also far down on the list. But the leaders then recognized that in order to maintain the modern industrial society which they have been building with some success, quite considerable success, the more highly skilled people, managerial groups and technicians, needed more incentives than were necessary in the coercive phase of the economy during the building of heavy industry in the late 1920's and the 1930's.

These priorities were actually established by Lenin's instructions to the Academy of Sciences to "draw up a plan for the reorganization of industry \* \* \* to create maximum facilities by which the Russian Soviet Republic could support itself independently."

National independence in the 1920's required basic industries. As Anthony Sutton has documented:

Choice was on an ideological basis. Railroads, mining and machinery sectors were selected on the basis of political, not economical choice. They were only coincidentally key sectors of the economy.

The resulting economic organization, which some people believe was modeled somewhat on Ludendorff's mobilization plan in Germany in the First World War, has had the major advantage of precise direction, but initially had a major disadvantage in regard to the new factor of science and technology.

However, this has been reversed in the past 10 years. Mr. Kosygin's statement at the 23d Party Congress in March 1966 asserted:

The course of an economic competition between two world systems depends on the rate of development of science and on the scale on which we use the results of research and production.

More theoretically, the 1961 party program contained this phrase:

Science will itself in full measure become a productive force.

I might point out in passing that the Soviet have never toyed with the idea of a technological plateau, which was widely discussed in this country in 1964, in particular by Dr. Jerome Weisner. They took the opposite point of view. They felt that new scientific discoveries could always be found. And it was the interest of the Soviet Union to try to find a basic understanding of the nature of matter, and to exploit it for their own reasons.

Now, despite their interest and very serious effort to improve their scientific base, there are flaws in the vertical structure of their economy which do not permit easy passage of scientific advance to other sectors of the economy.

Emphasis of late, as I have stated, has been on science as a production factor, and some reorganization of industry to spread subsequent technology has taken place. And they have also tried to encourage more innovation and greater incentive in their industrial setup. They have concentrated upon the development of numerous scientific laboratories. They have given a great deal of attention to improvement in the education of their engineers, who are the adaptors par excellence of technology. These efforts have been most successful in the military projects. A recent OECD report summarized this in this fashion:

Pressure from the consumer sector, on the one hand, and pressure from the military and space sectors, on the other, has severely strained both Soviet manpower and financial resources . . . Soviet technology is very uneven—specializing in rocketry, atomic power and other limited fields. But in certain areas such as machine tools, iron and steel, etc., the technological level in the U.S.S.R. is either superior, equal or almost equal to the U.S.

Soviet R. & D. runs on two tracks: (1) a priority track, and (2) a routine track . . . In these (priority) fields, the government wields its ubiquitous authority to enforce major priorities . . . What the Russians want to get done the most is accomplished at the expense of the other sectors of its economy.

If the priorities here are not clear enough they can be seen in the product results. Various economists and analysts have studied and related the Soviet economy and the military expenditures. And I do believe that most of them, like Dr. Herbert Levine and Dr. Hunter, generally agree that the Soviets can maintain a very fast rate of steady military expansion without seriously hurting the economy unless they exceed certain military allocation levels. And I do agree with Dr. Hunter's figures, which I think are accepted by most economists who study the Soviet Union.

In consequence, the modern Soviet Government continues the basic organization and program inherited from Lenin:

The independence of the country is secured by development of those means considered essential by the political leadership. In the 1920's it was coal, steel, aviation, and to a certain extent electricity; in the 1960's, rocketry, space and atomic power.

Now, their new emphasis on research and development, I think, is a matter of some importance, because many of the younger military theorists argue that more R. & D. now will pay off in the future. I would like to quote from one of the leading of these younger military analysts, namely, Lieutenant Colonel Bordenko, from a book which I co-authored with Harriet Fast Scott, "The Nuclear Revolution in Soviet Military Strategy," page 358:

The creation of a weapon that is new in principle and secretly nurtured in scientific research bureaus and constructor collections can in a short time sharply change the relationship of forces.

The surprise appearance of one or another new type of weapon is advancing as an essential factor, especially in the contemporary circumstance. Surprise in this area not only demoralizes the enemy, it also for a long time deprives him of the possibility of using effective means of protection from the new weapons.

This book is an anthology of about 25 articles published just before the fall of Khrushchev, and up to 1968. The publications used appeared in the official military magazines of the Soviet Union, and they are published for the orientation of their own people.

The results of the scientific effort and the allocation to military resources have resulted in progressively higher allocations shown on two charts. The charts were prepared by Mr. William T. Lee and Mr. Richard Foster of the Stanford Research Institute. They cover two areas.

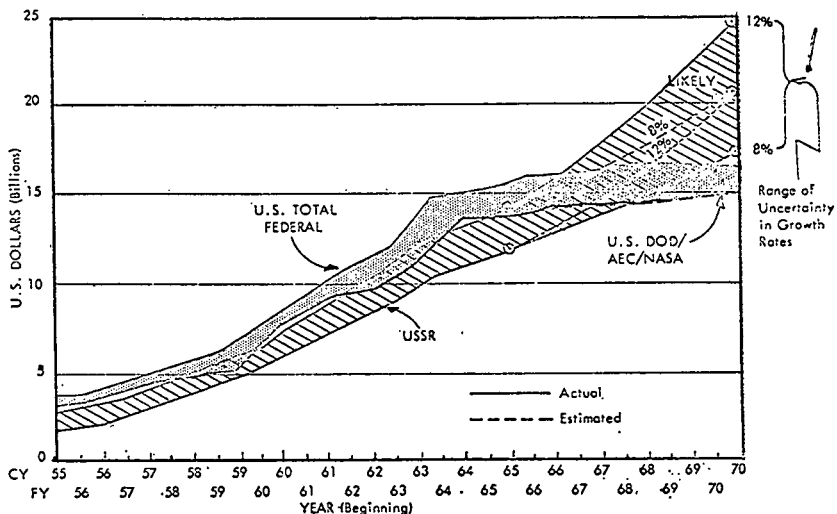
One compares United States and Soviet R. & D. According to this chart, the R. & D. curve passed in favor of the Soviet Union sometime about a year ago, and may be exceeding ours now in the time frame immediately ahead by somewhere between \$2 and \$5 billion. The other chart depicts total United States and Soviet national security expenditures.

Chairman PROXMIRE. This is military R. & D.?

Mr. KINTNER. This is military R. & D.

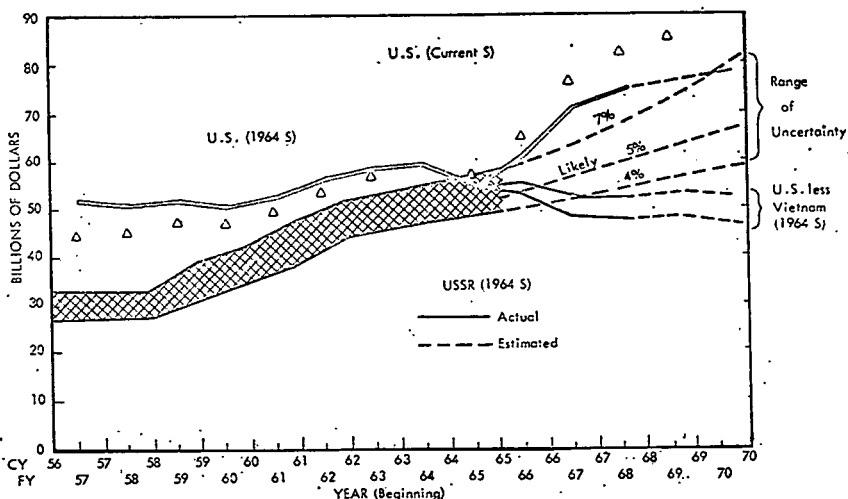
The other chart portrays what you might call all the national power aspects, space, nuclear energy, defense budgets, and so forth. And their figures indicate that the Soviets are currently, in U.S. dollars, allocating around \$60 billion, which is more than we do if we exclude the \$30 billion being devoted to the war in Vietnam at current figures. (The charts follow:)

**U.S./U.S.S.R. R.D.T. & E. EXPENDITURE TRENDS (Current U.S. Dollars)**  
(Includes DOD, AEC, and NASA Expenditures)



Prepared by R. B. Foster and W. T. Lee, Special Projects Office/Strategic Studies, Stanford Research Institute

**U.S./U.S.S.R. NATIONAL SECURITY EXPENDITURE TRENDS (Includes DOD, AEC, and NASA Expenditures for U.S. and U.S.S.R.)**



Prepared by R. B. Foster and W. T. Lee, Special Projects Office/Strategic Studies, Stanford Research Institute



MR. KINTNER. For other analysis of what the Soviets are doing, specifically in the major field of military development in the strategic offensive and defensive forces, I would like to refer you to the testimony given by Secretary of Defense Melvin Laird to the House Committee on Appropriations on May 22.

The Soviet capacity to produce conventional equipment was made evident by the June war of 1967 in the Middle East, in which the Israelis were estimated to have captured somewhere between a billion and a billion and a half dollars worth of Soviet military equipment. This lost equipment was subsequently resupplied at a very rapid rate.

As to their space achievements, I would like to call your attention to an article written by Mosel Harvey, former member of the Policy Planning Staff of the State Department, formerly our representative at the United Nations Atomic Energy Agency in Vienna. Harvey's article is called "Pre-eminence in Space; Still a Critical National Issue." He points out that our space programs about 3 years ago dropped from the funding of around \$6 billion to around \$4 billion, whereas the Soviet space allocation has remained constant or is slowly increasing.

His point is that, with this difference in priorities in space, the current advantage we have as a result of the Apollo shots might be lost in the mid-1970's.

As to Soviet development of sea power, I would like to call your attention to this book *Soviet Sea Power* published in June of this year at the Center for Strategic and International Studies at Georgetown University, produced by a panel of experts headed by Admiral Burke, former Chief of Staff of Naval Operations.

I would like now to just sum up and make two observations. Soviet policy and strategy are not a mirror image of American policy and strategy. I wish that they were. I wish that they had the same compelling reasons to respond to the excellent rationale given by Dr. Hunter for seeking a major reduction in the arms race. I don't see the evidence of it as of now.

In fact, the evidence we see right now is rather discouraging. Most Sovietologists whom I have been reading in the past 6 months, or since the Czechoslovakian invasion, commented on the reversal of the rather, should I say, nascent transitory liberalism, inside the Soviet Union. In fact, the Soviets have gone the other way. I cite an article by Eugene Lobel, "SuperStalinism: The New Soviet Foreign Policy." Lobel is a leading Czech economist. He is a man who knows the Soviet economy very well. But he also knows the Soviet system. And he argues that the Soviet Union is moving into an attitude of big power or superpower imperialism.

The same observation was made by Milovan Djilas after the Czechoslovakian invasion, when he described the Soviet system degenerating from revolution to imperialism.

I am sure you have all seen the articles in the *Washington Post* by Anatole Shub under the title, "The Soviet Union Turns the Clock Back."

The point is that with this immense power which they have already achieved, and their capability for producing more, and with the type of orientation which the present leadership exhibits, in my opinion

it is very unlikely that they will be willing to follow the very rational counsel given by Dr. Hunter and by many others to find basis for halting and reversing the arms race. This I would very much like to happen, but I don't now see it in the cards from my understanding of the Soviet system.

Chairman PROXMIRE. Thank you, Mr. Kintner.

And thank all of you gentlemen for an excellent job.

I will start off with Professor Bergson.

Professor Bergson, do you think that the Soviet Union has the potentiality to surpass us militarily in the next 5 to 10 years as some of our top officials in our Government say they can on the assumption that they use their resources militarily as emphatically as possible?

Mr. BERGSON. Well, Senator, as I have mentioned, the Russian level of output today is about one-half ours. Nevertheless, by giving priority to defense the Russians have been able to make themselves by all standards, a military power of the first rank.

Chairman PROXMIRE. By that you mean they are roughly equivalent to us in the allocation of resources to military?

Mr. BERGSON. In terms of the military power, I think of them as broadly comparable. I certainly wouldn't like to be precise on this. But we obviously are dealing with a first-class military power.

Chairman PROXMIRE. You wouldn't differ from Mr. Kintner's conclusion that they are spending roughly the equivalent of \$60 billion, that absent Vietnam they are just about the same as we are?

Mr. BERGSON. Senator, as I have indicated, these are very difficult figures to get together.

Senator PROXMIRE. I know they are.

Mr. BERGSON. The Institute of Strategic Studies estimates that their current expenditures are running about \$50 billion overall. I would not rule out figures larger than this. I am a little uneasy at the deduction of all of our expenditures on Vietnam in order to obtain a comparable figure for the United States. Our forces there are committed at the moment. But it does seem dubious to deduct such expenditures from our budget as if they did not contribute any strength.

In any event, in the existing state of our knowledge, this committee would not, I think, be well advised to try to pinpoint precisely the level of expenditures for Russia compared with the United States. This can quickly become a game.

Chairman PROXMIRE. We understand that. But you see, Professor Bergson, we are in a difficult position. We have to bite the bullet next month. We have to decide on the military budget. We have to vote it up or down. And we have far less knowledge, by and large, of the Russian economy and the Russian potential militarily than any of you four gentlemen has. I am speaking of most of us in the Senate and in the House. We have to make that decision. And we have to make some assumptions about our military strength. And the assumption that I am asking is would it be sound in your view for us to feel that our present level of military strength is adequate, is sufficient.

Mr. BERGSON. Senator, let me be clear, I feel that this is a matter which requires a most careful examination of extraordinarily complex questions. It is not a matter to be determined simply by looking at a defense budget translated in one way or another, from one currency

to another. I repeat, from all the information I have seen—and some of it is from such restricted sources as the New York Times—the Russians have, I feel, established a very impressive military power, on the basis of an inferior economy. This has required a very great effort on their part. And in effect you have asked whether they could exert an additional effort and much surpass us in the future. I cannot speak in absolutes. I am rather skeptical, though, that this is among the realistic possibilities we have to reckon with.

The Russians presumably will exert an effort to assure that they have a defense potential to support the kind of foreign policy they want to conduct in the future. And I can see them continuing to spend vast sums of money, and trying to match us where this seems appropriate, and perhaps in one area or another surpassing us. I don't think it is any great secret that they probably have already surpassed the West in some areas, especially that of conventional power in Europe. There is a good deal of evidence that this is so. But overall it would be a most difficult thing for them to try to surpass us much in military strength in the future with the kind of economy they have. They have to consider that the pressures of other needs are rising rather than declining.

Chairman PROXMIRE. Isn't it true also that to the extent that they take money from the consumer section, they reduce their incentives, the incentives of their people to work as hard, to put out as much? Professor Fainsod emphasized this yesterday. To the extent they subtract from the investment sector they reduce their capacity for future growth and therefore future military strength, is that true?

Mr. BERGSON. This is true, Senator. These are the principal competing claimants for the Soviet GNP, the Soviet pie. And I have urged that the pressure of competition is becoming more intense rather than less. This is rather paradoxical. The pie is growing. But the claims of the competing uses are becoming more pressing. In the case of investment it just so happens that Stalin put the Russians on a growth track where the investment cost of growth is continually rising. So that the share of the GNP that must go to investment must rise if the rate of growth is to be maintained.

Chairman PROXMIRE. All the testimony we got this morning from all of you experts, indicated that in spite of the fact, that you indicated that the Russians may be growing percentagewise more rapidly, in absolute terms they are growing less rapidly than we are, isn't that correct? Because they have one-half the size economy, and obviously if they grow at 7 percent and we grow at 4 percent, the 4 percent growth translates into a larger real growth than theirs.

Mr. BERGSON. This is quite true.

Chairman PROXMIRE. So they are not gaining on us.

Mr. BERGSON. It happens that if you take a number of recent years, they are growing less rapidly than 7 percent. According to estimates submitted to your committee, perhaps 5 to 6 percent is nearer the mark. And we have been growing lately, at around 5 percent, 4½ to 5 percent for a recent period, though that is not a rate which we can quite maintain. But in terms of absolute levels, the Russians are actually falling behind rather than gaining on us.

Now, Senator, I want to repeat, the alternative claims are becoming

more onerous rather than less onerous, the claims that are competing with the military claim. The Soviet Government cannot ignore them. Under Stalin it did ignore consumption to an extraordinary degree, probably unparalleled in the history of industrialization of major economies. In this area the present Government is suffering partly from Stalin's success. It happens that he was so successful in limiting consumption that he left very little opportunity for his followers to limit it more. On the contrary, for reasons of maintaining morale and incentives, and for reasons of political expediency as well, they have found that they have to do more for consumers rather than less.

Well, this together with investment requirements is limiting what is available for other uses. Specifically, this tends to limit the kind of defense budget that the Soviet Government can project to support one or another foreign policy. This is a significant constraint. You can't rule out extremes, but nevertheless, realistically I feel that any talk of a larger effort which would enable the Russians to go much beyond the United States effort overall, is not very realistic.

Chairman PROXMIRE. My time is up. I will come back.

Mr. Conable?

Representative CONABLE. Thank you, Mr. Chairman.

As I understand the Soviet economy, originally the idea was to build up basic industry, and then allow some degree of residual production of basic industry to move over into the consumer goods areas. We have generally tended to stimulate our basic industry by starting with the consumer goods and then building up the basic industry necessary to handle the claims of the consumer sector.

I also understand that in recent years there has been a tendency on the part of the Soviet economists to feel that they had to put a greater emphasis on the consumer side in order to stimulate the kind of growth that comes from an economy like ours. I was in Russia 3 years ago, briefly, and I found great interest then in the Lieberman theory, which would, as I understand it, decentralize the Soviet economy to a greater extent and try to harness some of the stimulative forces implicit in competition among plants and a greater degree of local autonomy in the economic sector. I wonder to what extent the Lieberman theories have been successfully implemented, whether they have resulted in less flexibility for the central planners in the assessment of priorities, and whether their tendency, and the tendency to try to use the consumer goods side as a stimulative for Soviet growth, have had any substantial impact on the formulation of priorities centrally.

Mr. BERGSON. Shall I comment on that, Mr. Conable?

Representative CONABLE. Yes, sir; if you will.

Mr. BERGSON. Broadly what you have said is, I think, quite accurate. Under Stalin the Russians achieved rapid growth by limiting consumption, concentrating to an unprecedented degree on the growth of heavy industry and investment goods. This enabled the Russians in a very short period to expand steel capacity from 4 million to more than 100 million metric tons by now, an imposing accomplishment indeed. But nevertheless, as I suggested a moment ago, the Russians have been suffering from this achievement, not only the consumers, but in a sense the Government.

The Government has had to conclude that the economy is unable

to continue to grow rapidly on this basis. There are no longer further opportunities to limit consumption à la Stalin. And beyond that the Stalinian model turned out to be extremely expensive in regard to the capital requirements per unit of additional output.

I think of the current planning reforms which have been so highly publicized as representing an effort by the Government to provide another basis for growth, an alternative to the Stalinian model which is no longer very applicable. It is seeking in effect to establish a model which can enable the Russians to achieve a more balanced growth.

I have to add that the planning reforms are rather modest. They have received a great deal of publicity, and perhaps reasonably, because reforms of this sort are rather novel in the Soviet context. For a long time the planning system had been ossified. The reforms represent something of a break with the past. But it is a very limited break. The Russians are not nearly as bold in this area as the Czechs or the Hungarians. And it remains to be seen what will be achieved, but it would be surprising if a major gain in efficiency were realized.

You relate the reforms to the question of priorities. I feel that it is entirely right to do so. The Government is seeking another basis for rapid growth which will enable them among other things to do more for consumers. The Government has felt that a higher priority must be given to consumers, that they cannot continue to be treated as the residual claimants as they were under Stalin, at least not to the degree that was the case under Stalin. And so you have reforms that are intended to economize on investment, and meet consumers' demands to a greater degree than in the past.

This is one reason I have urged that we must think of the Russian Government as, if anything, more constrained economically than it was in the past. The opportunities for substantial reallocations of resources in the direction of nonconsumption uses are much more limited than they were previously.

Representative CONABLE. Decentralization of the economic bureaucracy, then, has not been accomplished to a sufficient degree to impose bureaucratic restraint on central planning to any great degree, is that correct?

Mr. BERGSON. The Government itself has introduced the reforms, because its own priorities to some extent have changed. In the circumstances they had to change. But the decentralization has not gone very far.

Representative CONABLE. We have had a number of references to a possible bad crop in Russia this year. In the past there have been some disasters, of course, in this field. How bad is the crop situation? Quoting the same restrictive source you quoted earlier, Professor, I notice there has been some sort of publicity effort underway that extra workers are going to be allocated to getting in the crops because of natural disasters this spring.

Is this really a serious thing? For instance, are the Russians going to have to go to the outside world to make up food deficits this year as they have at some time in the past.

Mr. BERGSON. They had 2 good years in the last 2 years. To what extent they were able to build up reserves I am not sure. Such reserves could be drawn on if the crop is very short this year, as it looks like

it will be. I hesitate to use the word "disaster" for Russian agriculture at this time. I don't think that is appropriate. But the Soviet Government certainly has not yet mastered its agricultural problem in a Western sense. Russian agriculture is still very much affected by the fluctuations in weather. You can still have very wide fluctuations in the crop.

Representative CONABLE. Have they changed their approach to the "peasant's plot" that has produced so much of the Russian food in the past? This has been a problem for them actually, hasn't it, because of a diversion of the energies of too many collective workers into the farming of the private plots?

Mr. BERGSON. That is true. And their policy on this continually fluctuates, which makes you wonder how the plot continues to function as it does. Most recently the Government has been somewhat more liberal than it was previously. The peasants by now are probably not deeply impressed by such changes in policy.

Representative CONABLE. One last question that I would like to address to one of you other gentlemen is that you all seem to assume that this is a bipolar world, and that really all that counts here is Russia and the United States, their confrontation with each other and their competition with each other. I am wondering, if we keep on the course of continuing heavy investment in the arms race, if it isn't inevitable that we are going to have a trend toward multipolarity as a result of greater economic growth in other areas. I wonder also if Russians at this point aren't as inclined to respond militarily to the Chinese threat as they are to the American threat. And if so, doesn't this somewhat minimize the chance for successful arms reduction negotiations between the two great countries themselves? Musn't the Russians as well as the Americans consider the rest of the world in this process?

Professor Kintner, would you comment on that?

Mr. KINTNER. I think the Chinese threat is a real one. I don't think that is a Machiavellian plot between Peking and Moscow to make it appear as if they are quarreling. They are quarreling, and they are quarreling seriously. And the Soviets have, as the evidence seems to indicate, oriented some of their security forces to the Far East. That 4,000 mile border is something that is a real concern to them. The problem, I think, right now is that the Chinese capacity to carry on beyond verbal provocation is quite limited, and the Soviets now have the whip hand.

But in another 10 or 15 years that situation may be changed.

But I do think that as far as any major power confrontation it is already a triangular relationship. For the Chinese do force us to consider them very seriously. And they also bring many burdensome problems to the Soviet leadership. In my opinion the Chinese have the capacity to spoil whatever stability we are able to maintain between ourselves and the Soviets. And it is just another unfortunate factor.

Representative CONABLE. Would either of you other gentlemen like to comment on whether or not we aren't oversimplifying if we simply look at the question of the United States-Soviet Union competition in this arms field.

Dr. Hunter?

Mr. HUNTER. Well, I agree with you that the Russians are very much concerned now about relations with China. But I wonder if we couldn't subdivide the various geographic areas and forms of military power and say that it is crucially important to reduce the bipolar nuclear confrontation, which is the most dangerous aspect, and I guess very expensive. One might suppose that in Moscow there would be some willingness to consider a reduction in the scale of our nuclear confrontation in order, perhaps, to free resources or create other practical conditions for ground forces of a more conventional kind facing the East. I think also that if the United States were to reconsider the scale of its global commitments and cut them back in areas that really have nothing to do with the U.S.S.R., and if the United States were to persuade the countries of Western Europe to take more responsibility for their own military defense, the effect would be to lower and rearrange the precise content of our military effort and the Soviet military effort in ways that could seem prudent to each side.

Chairman PROXMIRE. Unfortunately Mr. Conable must leave: I understand there is a rollcall in the House. They convened earlier today, too. We don't have that kind of activity in the Senate for a while.

I would like to ask Mr. Kintner to answer what Mr. Bergson has said. You seem to take the position that the Soviet Union can step up their military output and their military strength and power and threat, and are doing so. Now, I think that the other gentlemen have made a very strong, very persuasive case virtually for me, that the Soviet Union is highly constrained, that whereas they have seven times as many people in agriculture as we have, they are producing less in agriculture, that their efficiency is much less in many, many other areas of their economic production.

Therefore, they just don't have the resources available in an economy that is now producing half of what we are producing. So what is your answer, in view of the conclusion which you seem to come to that what the Soviet Union does constitute a threat that is at least equal to us militarily and may well surpass us in the next few years?

Mr. KINTNER. I don't think that I stand alone in saying that they have the capacity to continue a major investment in arms.

Chairman PROXMIRE. I wouldn't dispute that either.

Mr. KINTNER. Their investment roughly parallels their 5 percent GNP growth and has been paralleling that for many years. And I believe, if I heard Dr. Hunter's statement right, that he concedes also that they continue to do this for a good period of time to come. Whether they have the capacity to overcome us depends on our own actions as well as theirs.

I also agree that the most logical and rational course is for us to achieve an arms control agreement. I think, however, that the Soviet leadership is not so constrained as of this time to enter into meaningful arms control agreements, and even if they do desire to do that, the forthcoming strategic arms limitation talks—SALT—will be far more complicated than, say, either the Test Ban Treaty or the Nonproliferation Treaty.

Chairman PROXMIRE. We are being asked by the Defense Department to step up our military forces substantially. We were told by

Comptroller Moot of the Defense Department that we would have to have probably close to an \$80 billion budget after Vietnam; we should save what we are now spending in Vietnam and devote virtually all of it to a further step-up in our military strength and force. And I am asking you whether you feel that you can justify that kind of a commitment, of our resources, which would mean we wouldn't have any dividends available to expend in the nondefense sector, at least the Federal Government wouldn't have?

Mr. KINTNER. I don't know whether their figure of \$80 billion—I haven't read the testimony—is what they are shooting for. I would say if we got out of Vietnam, which I would be very happy for us to do, that we might find that we level off not at \$50 billion, but around \$60 billion.

There are three factors I think we should consider. One is the strategic offense and defense relationship. Now, Mr. McNamara did try, I believe, for 3 or 4 years to hold our forces in that area constant, with the hopes that they would reciprocate to our unilateral initiative. However, the Soviets did not. In the past 4 or 5 years their investment in these fields have been roughly twice as much as ours have been.

Chairman PROXMIRE. In what field again?

Mr. KINTNER. The strategic offensive and defensive forces, the nuclear weapons which we are all deeply concerned with.

Chairman PROXMIRE. Their investment has been—

Mr. KINTNER. Twice as much as ours, in absolute terms; in our dollar terms \$14 billion to \$7 billion—again, these are approximations. It could be \$7.5 billion to \$15 billion to \$16 billion, somewhere in the area.

Chairman PROXMIRE. They have been catching up.

Mr. KINTNER. They have been catching up. And I think the general estimate, at least by our Government, is that in the strategic arms field they have already caught up, or they are likely to catch up in the very near future. I think that is a fair statement, from all the testimony that I have read.

Now, another area is the conventional power, which is what we are applying in Vietnam. Now, this turns out to be not less expensive but more expensive than the strategic forces. This was the great dilemma that Eisenhower faced when he adopted the "New Look." He said, we can't maintain them both. When Mr. Kennedy came in he decided to reverse it. The net result, as you know even before Vietnam was a steady increase in our defense budget. This rise was inevitable because the conventional forces, the manning and so forth are more expensive than nuclear.

The third point where I think our defense people are concerned is the increase in Soviet seapower. It has been a marked increase. It is already influencing the very difficult situation in the Middle East, as well as in northeast Asia around Korea. And our naval forces are about 80 percent obsolete. We have ships in the fleet that are over 20 years of age. The Soviet fleet on the whole is quite new.

Accompanying that development is their merchant marine development—according to estimates that I have read from official sources, by 1975 they will have the No. 1 merchant marine in the world.

These advances are going on right now. And they reduce our



ability, depending upon what our policy is, to function the way we did in the past 10 years.

I agree with you as to the desirability of having the Western European countries pick up more of their defensive needs than they have done. We have not yet found a way to prod them or to encourage them to do this. And we still face the fact that Western Europe could become under certain circumstances a hostage of the Soviet Union. Because the real defense there has been our nuclear retaliatory capability. And that is what appears to be threatened, according to the views originating in both the White House and the Defense Department.

Chairman PROXMIRE. You conclude, then, that they are capable of surpassing us—or do I misstate it—surpassing us from the standpoint—surpassing us in the area of nuclear power, that they are gaining on us? You say they are devoting more of their resources to it then we are in absolute terms, and they may well surpass us? Or do I misstate your position?

Mr. KINTNER. They don't necessarily have to surpass us. The point is that the momentum of their current building program, such as the SS-9, and the SS-11, and also their ballistic missile defense system, if it continues into the next couple of years, and we do nothing, could provide them with a possibility of achieving a significant advantage which they could use in a crisis situation.

Chairman PROXMIRE. Then you are also arguing that they are going to surpass us in naval force, or they may surpass us in naval force, they are devoting more of their resources to it?

Mr. KINTNER. Their present naval building program is quite significant. Our navy, as I have suggested, only has 20 percent modern ships in the fleet.

Chairman PROXMIRE. We are extending a great deal of our resources here. We have in the budget a request for an additional aircraft carrier, and many other naval weapons. So that at any rate you argue that they are spending more in the naval area, at least they are building up their naval forces?

Mr. KINTNER. I didn't say that. I am not sure what their comparative naval expenditures happens to be with respect to ours. The only specific point I made was our strategic offensive and defensive forces, where they have been spending double and the momentum of that spending is still continuing.

Chairman PROXMIRE. Then there must be something wrong with the way we are investing our resources in the naval area. You contend—or did I misunderstand you—did you say that they are gaining in comparative naval strength?

Mr. KINTNER. Relatively speaking their naval power is increasing with respect to ours. That is an assertion that I will make. I do not know right now the actual level of their expenditures. I do know, and I have talked to many people in our Navy, that they believe that the state of our fleet is becoming obsolescent, and that the Soviet fleet, even though it is now smaller than ours—and we still have naval superiority, don't misunderstand me on that point—is growing at a fairly consistent and fairly rapid rate.

Chairman PROXMIRE. Then you also say that they are certainly outspending us in the merchant marine area?

Mr. KINTNER. In the merchant marine area sizably.

Chairman PROXMIRE. How do you reconcile all this? And also that they are building up—that they maintain a conventional superiority at least in Europe in land forces.

Mr. KINTNER. In Western Europe they maintain a conventional superiority according to General Lemnitzer.

Chairman PROXMIRE. If they aren't 10 feet tall how could they do all these things.

Mr. KINTNER. I think we have tried to indicate that with a lower resource base their allocation principle has been quite different from ours. I will give you one example. In 1954-55 our defense budget was roughly 13 percent of the GNP. I believe our GNP is supposed to be over \$900 billion this year. Our actual defense budget is now about 9 percent of our GNP. It is also—and this is an interesting factor—less a percentage of our total Federal budget than it was in 1954-55. I believe it was around 70 percent then. My figures may be off a few points, but I think I am generally correct. Now, by the time we got fully into the war in Vietnam in 1967, our defense budget had gone down to 50 percent of our Federal budget. Even with the Vietnamese war the total defense budget this year is \$80 billion. The total Federal outlay budget, I believe—and I am in the presence of economists—is around \$190 billion, which makes defense around 42 percent of the total Federal outlay.

Chairman PROXMIRE. We have got several problems here. Of course one is that we have greatly increased our social security outlay, and increased our expenditures in many other areas.

Mr. KINTNER. Right.

Chairman PROXMIRE. Very greatly increased.

Mr. KINTNER. And we have cut down on our foreign aid tremendously during this period.

But their allocation problem differs—all I am saying is that they allocate differently than we do. And their views of what they need to allocate for are different than ours when we look at the world around us. And they appear to be devoting a considerable amount of their resources to what I call the accouterments of power, not that they necessarily intend to use it, but they will get political power from their military vis-a-vis the United States, Communist China, and the Middle East.

Chairman PROXMIRE. Professor Berliner, would you like to comment on that.

Mr. BERLINER. I would like to begin by calling attention to the figure of \$60 billion that has been used for Soviet military expenditures.

The only firm figures we have, as firm as any of these figures are, are the figures presented in Mr. Hunter's paper, and widely used, of the officially budgeted Soviet military expenditures of about 17 billion rubles. Converted at the official rate of exchange, it comes to about \$18 billion. And conversion at the official rate of exchange is a very silly business, of course. Now, to get from \$18 billion—decidedly an underestimate—to \$60 billion requires, I submit, some explanation.

And I wonder if Mr. Kintner could give us some of the details of this rather enormous estimated difference.

For example, has he included Soviet merchant marine expenditures as part of the national defense, since it has been presented here as part of the future strategic position of the Soviet Union? Has he used, for example, some adjusted factor cost of production of military equipment, or has he tried to estimate some part of market price?

Chairman PROXMIER. What do you mean by factor cost?

Mr. BERLINER. Is the estimate of the value of all that was produced based on the actual Soviet prices, or has he attempted to take account of subsidies, for if subsidies are not adjusted for, the ruble cost of a piece of equipment doesn't necessarily reflect the cost of the resources that went into producing it? Or has he on the other hand used dollar prices directly, as is often done quite honestly when you try to get comparative estimates of this sort; very often what ones does is to examine a Soviet tank or Soviet plane and try to figure out what it would have cost to produce that plane in the United States? This gives you an entirely different basis of evaluation of the value of that plane than if you used ruble prices.

Now, since the figure of \$60 billion has assumed so important a role in these discussions, I wonder if it would be possible to get some clarification of how it was arrived at.

Mr. KINTNER. I have pointed out in my opening testimony that I am not an economist. I have relied upon the work of other economists. And in particular that figure was—and I should say it is a range figure—somewhere between \$55 and \$60 billion. It was produced by Mr. William Lee, of the Stanford Research Institute, who spent about 15 years of his life in the unknown agency in this town dealing with these matters. And he has had access to the economists at RAND, who have also dealt with these matters. And I think his figures have been pretty well checked out. I have a paper here in front of me—and I am just leafing through it—it discusses that point, but I am having a little difficulty finding it. Here it is.

(The paper referred to follows:)

#### CALCULATING SOVIET NATIONAL SECURITY EXPENDITURES

(By William T. Lee)

Questions concerning the actual size of the USSR military budget and its impact upon the economy are particularly difficult to answer because so little data on military and space expenditures are released by the USSR. The problem is further complicated by the question of how to convert rubles to dollars (or vice versa) in order to compare the level and trend of military and space expenditures in the U.S. and the USSR. These are thorny questions beset by many uncertainties which give rise to conflicting views.

It is generally understood, I think, that the Soviets release only one line item labeled "defense" in their annual budget without any breakout or discussion of which weapons systems are (or are not) being procured in a given year. And there is another suspect entry labeled "science," which is carried under the appropriation for education in the appropriation for "social-cultural" services. Many Western students doubt if the "defense" item represents total USSR expenditures for this purpose. Most would agree that some portion of the "science" entry is spent for military RDT&E and/or the national space program. I concur with those who believe that the expenditures for national security, i.e., the USSR equivalent of the combined budgets of DOD, AEC and NASA in the U.S., are substantially greater than "defense" item, or even of the "defense" and "science"

appropriations combined in more recent years. I also suspect that the sophisticated tools of the missile and space age have been acquired at relatively greater cost in the USSR than in the U.S., so that the ruble/dollar ratio for military and space expenditures probably has been rising over the past decade even though inflation appears to be much more evident in the U.S. than in the USSR.

There are several reasons for doubting that the explicit "defense" and "science" items in the USSR budget represent total expenditures for these purposes. First, the budget contains two substantial residual items whose purpose is unexplained. Secondly, between 1950 and 1961 the behavior of the "defense" item may be explained largely, even entirely, by the increasing cost of pay, maintenance and operations associated with the expansion of the armed forces during the Korean War period and the subsequent demobilization in 1955-60. Moreover, 1961 increase in the "defense" item, always suspect because of its magnitude and mid-year timing, appears to have been a transfer of funds from one of the residuals to "defense." Third, the new series for "science" (budget and other sources) is substantially higher than all previously released data. That all data released thus far on expenditures for "science" in the USSR falls short of total RDT&E and space outlays is indicated by Soviet writers who say that RDT&E monies also are appropriated under "financing the national economy," "defense," and that some bank credits are made available for R&D.

These are representative of the reasons for seeking alternative methods of estimating Soviet national security outlays. One approach may be called the "financial" method because it analyses the monetary flows through the state budget, the financial operation of state and cooperative enterprises, and the lending activities of the bank system. To simplify, this approach balances the income of the public sector (excluding household, and collective farms) against end use outlays (e.g., subsidies and free social services). This procedure identifies a substantial amount of money, although less than the budget residuals, which appear to be spent for "national security" purposes. When combined with the "defense" items and a portion (say 60 to 75%) of the "science" entry, the result is believed to be a fair approximation of total expenditures for national security purposes.

The other approach may be termed a "hardware" method because it seeks to identify that portion of USSR durable goods output allocated to the military and to the space program. This approach involves moving from the gross output data normally published to an estimate of the final value of durable output, and then calculating the distribution of durable output.

Between investment, consumption, and defense, an estimate of the cost of pay, maintenance and operations is added to the military durables in order to approximate USSR "national security" expenditures in rubles.

Each of these methods provide a check on the other even though there are certain conceptual differences between them. The financial approach is the more comprehensive in scope. The results are compatible for decade 1955-65, the financial approach always yielding the higher series, as it should. I prefer the estimate based on the hardware approach, in part because it is more conservative conceptually and in the final results.

This latter approach suggests ruble expenditures for national expenditures of about 13 billion in 1955-58 which I estimate was the equivalent to about 29 to 33 billion dollars, converted at a ratio of 0.4 to 0.5 rubles to the dollar. In 1965 I calculate expenditures at about 23.5 billion rubles\* which when converted at 0.45 to 0.5 would be the equivalent of about 47 to 52 billion dollars. Based on recent data, I estimate USSR expenditures in 1968-69 at 26 to 31 billion rubles (minimum). This suggests a current level of spending of about 52 to 62 billion dollars in 1968 if 0.5 is a reasonable conversion ratio.

One of the most difficult problems, of course, is estimating the conversion ratio. Previous calculations of the conversion ratio for investment, based on the 1955 wholesale prices, makes 0.4 to 0.45 a reasonable estimate for the mid-1950s. What has happened subsequently is both uncertain and controversial. One school of thought argues that the ratio has declined more or less directly proportional to the rise in U.S. wholesale prices. I believe the scattered indicators available indicate that the cost of developing and producing technologically advanced equipment in the USSR has risen more rapidly than in the U.S.

\*See conversion table.

CONVERSION OF U.S.S.R. NATIONAL SECURITY EXPENDITURES TO 1964 DOLLARS

	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
U.S.S.R. national security expenditures (in billions of current rubles).	11 to 15.....	11 to 15.....	11 to 14.....	11 to 15.....	12 to 16.....	14 to 17.....	16 to 20.....	18 to 22.....	20 to 24.....	21 to 25.....	21 to 26.
Midpoint.....	13.	13.	12.5.	13.	14.	15.5.	18.	20.	22.	23.	23.5.
Ruble/dollar conversion ratio..	0.4 to 0.45...	0.4 to 0.45...	0.4 to 0.45...	0.4 to 0.45...	0.41 to 0.46...	0.42 to 0.47...	0.43 to 0.48...	0.43 to 0.48...	0.44 to 0.49...	0.45 to 0.50...	0.45 to 0.50.
Midpoint converted.....	29.0 to 32.5...	29.0 to 32.5...	27.8 to 31.3...	29.0 to 32.5...	30.4 to 34.2...	33.0 to 37.0...	37.5 to 41.9...	41.7 to 46.5...	44.9 to 50.0...	46.0 to 51.1...	47.0 to 52.2.

Chairman PROXMIRE. Fine. We may come back to that. But Mr. Berliner has asked for a detailed explanation of the difference between \$18 billion and \$60 billion. Yesterday we had a witness who indicated that a great deal of this was internal security. But in my view he didn't establish that very firmly, he just said that they do spend a great deal on their military internal security forces. But it was hard to believe it was in this area.

Mr. BERLINER. May I make an observation on the military budget, and try to respond directly to what is your main concern—what do I think about how one should vote with respect to the military budget?

Chairman PROXMIRE. Yes, sir.

Mr. BERLINER. The reason it is a tough question for an economist—and that is the professional capacity in which I come before you—is that an evaluation of the Soviet military posture versus that of the United States can't be dragged out of economic statistics. I think the answer has to come from a juxtaposition of the physical military objects and their disposition, rather than from monetary numbers, first, because the numbers are just so easy to fool around with dishonestly. Give me a couple of days, give anybody a couple of days, and one could dredge up for you probably a reasonable estimate in dollar values. But, of course, the Soviets don't produce things in dollar values, they produce them in ruble values. And this gives us an awful lot of leeway in converting what they produce into dollar values.

For this reason I would not wish to answer the question you asked in terms of the budgetary and other aggregative kinds of statistics we have been using here. What I would like to know in order to answer your question, the kind of evidence I would want, is a description in physical terms of the fighting capacity of the Soviet Union and the United States.

I would need to know the general strategic picture in real terms.

For example, on the Soviet military buildup in the Mediterranean, the Institute for Strategic Studies reports that in 1968 the Soviets had an average 30 to 40 ships in the Mediterranean at any time. The evidence, according to the Institute, is that they still do not have any permanent base of supply, and that they do not have any attack aircraft carriers which, according to the Institute, is the key to what their real intentions are in the Mediterranean.

I give this as an example, because if I were to answer your question—do we need larger military appropriations or smaller ones, the answer has to do with questions of this sort rather than with economic magnitudes. Perhaps one way to get at the answer would be to ask this—

Chairman PROXMIRE. I am sure it does. The reason I asked that question is because again and again and again, when we are confronted by people who feel that we need a substantial increase in our military buildup, they argue that we face in the Soviet Union a very powerful adversary which is growing in military danger and threat, and that this is the reason, the overwhelming justification for our expending as much as we are, and to expending more in the future.

And you are the experts on the Soviet Union. We are trying to elicit from you what your judgment is.

Mr. BERLINER. With respect to the capacity to support it?

Chairman PROXMIRE. Correct.

Mr. BERLINER. I would guess that any reasonable expansion in military capacity is not outside the capability of the Soviet Union, just as it isn't outside our own capability. The question we have to ask is, what would it do to the Russians to continue to increase or to accelerate their military capacity? That is the question with which I will conclude.

But first I would like to say that as a sort of semi-layman in this business, one way in which I would answer your question would be to ask, if I were a general, which military establishment would I like to be running? Suppose I were a denationalized, international sort of amorphous war maker, and had my choice of military machines. I dare say, my hunch is that I would much rather be sitting across our strategic military force than I would across the Russians. Anybody who says that the Russians have a greater military capability than we must be saying in effect if he were this kind of general he would rather be riding on the Russian military strength. I think few would hold this view. If that is the case, then in this semi-layman way my answer to your question is that we could reduce our military appropriations.

Second, the Russians are generally behind us militarily. They are behind us in nuclear submarines. And the Institute of Strategic Studies calculates that they are producing them at only the rate of one or two a year, which I found a rather astonishing figure.

I think we have to expect that as long as the Russians maintain military inferiority to us, they are going to continue to feel that they have got to pull abreast of us. I think we would do the same thing if we were in their position, whether we were Marxists or Chinese Nationalists or American imperialists. I can't imagine how the Russians would permanently accept a state of military inferiority that no sensible nation that had the capacity to overcome such inferiority would ever maintain. From this point of view I would agree with those who have pointed out that the Soviet military buildup, particularly in their ICBM's over the last 2 years, may have created the possibility for the first time of some kind of nuclear agreement, even with all the problems of China—and I agree that these are going to be difficult ones—with all the problems of China and related ones, we may now for the first time be in the position of being able to deal with the Russians, they dealing as equals in a sense that they never were before.

My last point is directed to the question asked by Mr. Conable, How do the Russians feel about the need to allocate the increasing resources—consumer goods and services—for incentive purposes, resources which compete with military and investment resources? It is a good question, and the substance of the answer has been given here. But I hope the same question is asked about the United States, when you make your decision on how to vote on the defense budget. The United States equivalent of Russian consumer goods is the poverty problem, and the problem of urban blight. And I do hope that when the decision is taken on military expenditures that we think of the strength of the Nation not solely in military terms, but in general social and economic strength.

For there is in the Federal budget this year, I understand, the first appropriation for interplanetary travel, which is a very grim business.

When we get into the business of interplanetary travel I imagine the present space program is going to look like peanuts. And it is going to be defended in the same terms as were used by Colonel Bordenko, the Soviet colonel who talked like any colonel in any country in the world, I presume, about the appropriate approach to military planning.

If we get involved in this interplanetary travel, which would be defended on the basis of our national military posture and our national honor, we have no guarantee today that the housing program, the urban program, and the poverty program will not be made to wait. We face the possibility—

Chairman PROXMIRE. What would be the effect on that if we asked the Soviet Union to collaborate with us and engage in interplanetary travel with us so that we don't duplicate our space effort and our space research, and so forth, and so that we would create an area of understanding and cooperation?

Mr. BERLINER. I would guess that the Russian scientists would be delighted, and the Russian politicians would be as frightened as politicians in any country.

Mr. KINTNER. I believe we have already made that offer.

Chairman PROXMIRE. I am not so sure. I raised this with some of the people in NASA, and they had a lot of objections. And the main objection that they gave is that the Russians don't speak good English.

Mr. BERLINER. This is changing.

Chairman PROXMIRE. It might be a problem of communications.

Well, I would like to ask you this.

A recent article in U.S. News & World Report cited a view of some Western experts as follows: "Despite the swift growth of Russian nuclear power, the Soviet Union—in the opinion of many Western strategists—faces greater dangers today than at any time since the Stalin era, and is politically weaker." Would you agree with this evaluation?

Mr. Bergson?

Mr. BERGSON. I should have been glad to let my colleagues speak first on this, Senator. I am not quite sure what dangers are referred to. I do feel the Russians are deeply concerned about China. And I don't think one can overstate the impact of the Chinese developments on Russian thinking about foreign policy. The Russians have now, for a number of years, been trying to reorient the conduct of their foreign affairs to take into account the recent developments regarding China.

The Czech action affects the Russian status in Eastern Europe generally. And many tensions must have been exacerbated. But you know as well as I, Senator, that this is a most complicated matter, and it is difficult to argue that the Russian position has been weakened, at least in the short run, I also find it rather difficult to understand domestically the comment you read. The Government has pursued, it is true, a more repressive policy politically in the last few years than Khrushchev did in the final years of his tenure.

Chairman PROXMIRE. Mr. Hunter?

Mr. HUNTER. I wonder if I might comment on the question of how a thoughtful Congressman should vote on defense. Experience now has shown quite clearly that the two countries respond to each other in a reciprocal way, so that if our defense appropriations rise significantly,



it is a safe guess that Soviet appropriations will rise. There is a chicken and egg problem, of course, of who did it first. One can point to recent Soviet increases and say, we are responding to them. We haven't had much experience with a reciprocal downward movement, but as you could tell from my testimony, I think that is worth a try.

Chairman PROXMIRE. You are basing this, however, on an arms control agreement of some kind, are you not?

Mr. HUNTER. Yes, sir.

Chairman PROXMIRE. You wouldn't suggest any unilateral reduction?

Mr. HUNTER. No. One thing that would help in such an experiment is that there is a long leadtime. The 5-year force planning that we go through is stretched out each year 5 years into the future, and sometimes 8 years into the future. There is a similar forward look in Soviet planning, of course. This means that no lightning danger can arise from the U.S.S.R. toward the United States that will suddenly confront us with overwhelming military superiority. There would be a gradual change, whatever direction it took.

Chairman PROXMIRE. You say that with complete conviction, referring to the nuclear challenge; the possibility of a first-strike capability on the part of the Soviet Union you think is remote enough so that you can assert that?

Mr. HUNTER. Well, it is an engineering or technological question rather than an economic one. I am no expert. But my understanding of the situation is that the initiator of an exchange would pay such a heavy price that it is really not worth contemplating.

Chairman PROXMIRE. Then you are saying that they don't have a first-strike capability. What I implied in my questions of first-strike capability is that they could knock out deterrent so that they wouldn't suffer the suicidal consequences that threatened before.

Mr. HUNTER. I cannot, as an economist, judge the likelihood of that. Everything that we read in the New York Times suggests that that is not a fear at present, and is not likely to be a fear for the next few years, especially since, if the U.S.S.R. continued, for instance, producing SS-9's, we would presumably know it, and we wouldn't stand idly by over the next 5 years while the balance changed.

A related comment on the size of the two establishments, and what we get for our money and what the U.S.S.R. gets for its money. I wonder if there couldn't be an effort to ask the Armed Forces of the United States and their industrial suppliers to adopt a leaner look, to develop greater efficiency. My own slight acquaintance with them suggests that U.S. defense efforts have been on a rather ample scale, that people in national defense here set very high standards of reliability, that they are perfectionists, and that they understandably try to go as far as humanly possible to protect the American people against every eventuality.

I wonder if we could try to be not quite so perfectionist? Colonel Wolfe said yesterday that he thought the absolute top priority for the United States was to have a healthy American society.

One might add, man does not live by bread alone, and a state does not stand by guns alone. If the United States seeks to fend off external danger primarily through enormously expensive military ef-

forts, and meanwhile, if internally our domestic society becomes unhealthy, then in fact the Congress that votes this way, failing to give appropriations for domestic progress, but focusing on lavish support of external defense, would not be thinking through rigorously the relative dangers on these various fronts.

Chairman PROXMIRE. What you are saying, I think, is very important. As I understand it, what you are saying is that to the extent Congress can pare the military budget or reduce it by \$5 or \$10 billion without significantly reducing our military capability, our combat capability, it not only saves money, and not only provides funds that are available for other priorities, but also tends to ease the arms competition with the Soviet Union, and has this additional value. I think that is most encouraging.

I would like to ask Professor Berliner. A great many people believe that the intention of the Soviet Union has changed in recent years. That doesn't come through so clearly from this panel this morning. But I wonder if you think there is anything to that notion, and therefore it may be more possible than before to live peaceably with them. Based strictly on their military strength, economic development, and the shares that go to domestic need or defense, do you believe that the objective evidence supports this view?

Mr. BERLINER. I always have difficulty responding to a question about what a "nation" believes, what a "nation's" objectives are.

Chairman PROXMIRE. I am asking what you would conclude on the basis of what they have done, not what a nation believes, or what Brezhnev or Kosygin or any leader believes, but after looking at the facts, what would be your conclusions and developments?

Mr. BERLINER. Let me present a few of what may be regarded as major changes in the past few years, and see if they add up to a change in objective.

There seems to be an increasing realization that a strictly governed totalitarian way of organizing society, in the Stalinist sense, does not serve modern objectives. The economic reforms, the reforms in agriculture, the tenor of all the changes within the economic system—and I can't for the moment think of the evidence with respect to other parts of the system—suggests perhaps not a different outlook on life by the Soviet leaders, but perhaps a different distribution of outlooks among the Soviet people, away from what might be called the old totalitarian notion.

Another major change that should be introduced in any long run view of Soviet objectives is that, at the time of Lenin, which has been cited here as part of the historical evidence, there was no surer item of faith in Lenin's Marxist view of the world than that the day of the capitalist world was over. In a relatively short time capitalism was expected to enter the stage of a general crisis, and socialism would vindicate itself. If Lenin could have foreseen the state of the world 50 years thence, I think he may not have even made the revolution. What has happened in the world, particularly in the capitalist world, has had an enormous impact on Soviet thought. We know that since the 1950's the Soviets, not only in their practices, but in their ideology, have accepted the notion that the capitalistic world is not headed into a stage of general crisis, that capitalism has stabilized itself, partly

on the basis of the so-called new economics, and partly on the basis of what the Soviets regard as the new imperialism. But whatever the reason, the view now is that the capitalist world is here to stay. It is no longer the case of a rising Socialist star, and an inevitable, in almost in a religious way, an inevitably declining capitalist world.

That has led to what must be extensive changes in the Soviet view, or the distribution of views among Soviet leaders. It will affect, for example, attitudes toward the rest of the world. Let me illustrate this in what is my present research occupation. The Soviets have expressed great concern about the slow rate of technological progress and the technological lag behind the United States. In my own investigations of the sources of the Soviet lag, the difficulties the Soviets face in rapid innovation, it occurs to me that one of their major difficulties is the inherited effort to insulate their country from intellectual contact with the rest of the world. In the process of technological transfer from nation to nation, a very important role is played by international travel; by sales engineers from capitalist firms, for example, traveling about the world showing their latest models of new equipment. A great deal of the technological information available to engineers in capitalist countries, as well as the East European Socialist countries, increasingly comes not so much from published material—which the Russians buy in great volume, but which is always 5 years behind—it comes from the day to day contact, from the intercourse in object of high technology and in the contacts among people in international associations.

The pressure on the Russian leaders, particularly those who are professionally concerned with technological progress, the pressure on them to get their people abroad to see what the latest model French and American computers look like, to know the level of world technology in order to be able to produce it, is enormous.

Let me give one example from an article by an industrial engineer in a construction designing institute, who was responding to an order to him and to all engineers that in designing new plants they should introduce the very latest of world technology. The man responded by saying, "we don't know what the latest world technology is. My catalogs from foreign firms are about 5 years old. And by the time I design, with the facilities of my own institute, the instrumentation for the new factory, it is already 5 years behind that of the rest of the world."

In Stalin's day this may not have mattered, this political and social and economic insulation of the Soviet economy from the rest of the world. But in this day it does matter, partly as a consequence of the R. & D. revolution, which has made technological change a major new source of rapid economic growth, and which inevitably is an international effort. For the Russians to try to run their system in the same old way would be inevitably to deny themselves access to this major source of economic growth.

Now, in this sense the society, I think, has changed its objectives. It has changed its view of its relationship to other countries, and its view of the job it has ahead of it.

Chairman PROXMIER. Mr. Kintner had an answer, I believe.

Mr. KINTNER. In the first place, as to their losing belief in the crisis of capitalism, I would refer you to Brezhnev's speech given in Czecho-

slovakia in April 1967, in which he describes at great length that the long-range trends are still against the capitalist system. It was an official speech. It was aimed at the destruction of NATO, and easing the United States out of Western Europe, and so forth. This was very much in line with what Mr. Lenin said 50 years ago.

And furthermore, in my understanding of Lenin, he did not say that the capitalist system would be finished in a short time, he said the final phase of the struggle would be an epic, and would take several generations, without giving the exact number.

The next point I would like to make is that one of the great dangers, to get back to the questions you raised earlier, is the fundamental political insecurity of the regime. I think the Czechoslovakian invasion demonstrated that. They cannot tolerate general freedom. And I think that the combination of tremendous power which they already have and their efforts to acquire more, in behalf of a regime which appears to be reverting to some of the forms of totalitarian control which we had hopefully thought they had given up after the passing of Stalin, is a fact that we should consider.

I mentioned Eugene Lobel, the Czech economist, and his article, "Super Stalinism." He should know about the totalitarian system. I happen to know the man personally. He was involved in the Slanski affair in Czechoslovakia in 1949. And spent 5 years in solitary confinement. I believe he knows of what he speaks.

Now, as to the point that they have to rely on publications or catalogs, 5 years of age, I have known of one person in this country, whose name escapes me now, who has the job of buying up very large numbers of all the advanced scientific and technological journals published in this country and forwarding them over there very rapidly. So I don't believe that they are at least 5 years behind in knowing what we are doing. They may be behind us in certain areas of applying the discoveries they have made.

Would you agree with that?

Mr. BERLINER. No; I would differ in the significance of publications. I think the best way to insure that the Soviets will perpetually lag behind the United States is to give them free great quantities of our current technological publications. I have recently been working a bit on computer technology, and one of the generalizations expressed by people in the computer field is that not only do the Russians gain very little from published information with respect to computers, but they gain very little, in a manufacturing sense, from the physical objects themselves. That is, importing a computer, let's say, and then setting about learning from it, learning the technology, learning the chemical and metallic properties of the materials used, and trying to redesign one's own computer on the basis of an imported one, is the best way to assure that by the time your own computer gets in operation you will never have a chance to sell it anywhere.

So I disagree with Professor Kintner's evaluation of the significance of published information. I would agree with Professor Kintner that there is strong evidence of a return to what might be called Stalinism, although I am sure that Dr. Lobel, if he had his choice of living in Prague today or living at the time of the Slanski trials, would have no question about whether there has been a full return to that period;

he would decidedly prefer to live there today. To say that there has been a return to Stalinism ought not to be interpreted to say that the socialist countries live as they did at the time of Stalinism.

Moreover, with respect to Mr. Brezhnev's statement, it is sometimes said that when the Archbishop of Canterbury declares that he believes in God it is no news, but if he declares that he no longer believes in God, that is newsworthy. And Mr. Brezhnev, of course, believes in God. But if you examine the literature more broadly—take some of the publications of younger Soviet economists for example—it is perfectly clear that no matter what Brezhnev says for public consumption, most Soviet intellectuals do not expect the collapse of the capitalist world. It may be that as party leader Brezhnev believes this, but I have no doubt that Mr. Kosygin doesn't. And the engineers and the economists—I don't know whether they are the Soviet Union, but they surely have an influence in the Soviet Union—to my mind there is no doubt that they have long ago given up the hope that the capitalistic system will bury itself.

Chairman PROXMIRE. I would like to ask you, Professor Berliner—I understand your statement to say that the Soviet housing need has a relatively low priority. This appears to conflict with the repeated statement of Dr. Allen Bates of the National Bureau of Standards, who is probably our foremost expert on Soviet housing, that they are making vast quantitative and, for them, qualitative strides in housing. I understand that in the western cities the quality is now approaching what we would think of as decent standards, and while they have less space per person than we do, they have additional communal spaces which we do not have.

Mr. BERLINER. I wouldn't want to give a black and white picture. Housing has improved greatly. In 1948 the Russians were in truly desperate straits. I don't have figures on the floor space per person at that time, but since 1948 there has been an extensive effort to increase housing, and per capita floor space and associated amenities have improved. Also I don't understand the introduction to your question because I intended in my paper to state that housing is probably the second most important priority, next to agriculture in my guess as to the Soviet leaders—

Chairman PROXMIRE. The second most important nondefense and noninvestment priority.

Mr. BERLINER. That is right.

Chairman PROXMIRE. That makes it, depending on how you look at it, relatively low. So these are the four priorities that seem to be quite high.

Mr. BERLINER. Nevertheless, looking to the place at which consumers would most benefit from increases in living standards, housing is likely to be very high, close to the second. For that reason it is all the more astonishing that housing appropriations have dropped absolutely in the past several years.

Chairman PROXMIRE. Maybe we are looking at it—from our standpoint, I am told by a man who has spent a lot of time in housing in the last couple of years that they are spending about five to six times as much on subsidized housing as we are.

Mr. BERLINER. On subsidized housing?

Chairman PROXMIRE. On low-income housing. Of course our low-income housing or moderate-income house has to be subsidized or it is not built.

Mr. BERGSON. There is also a lot of low-income housing in the Soviet Union.

Mr. BERLINER. All their housing is subsidized. That is one of the features of their pricing system. So I don't understand the statement that most of it is low income or subsidized. It is all subsidized, except for a relatively small amount of sort of luxury housing built on a co-operative basis, on the basis of recent legislation.

Chairman PROXMIRE. Professor Bergson, I am extremely interested in your table indicating in all probability that Soviet real defense outlays now possibly equal the peak reached in World War II. I was quite startled at that. I wonder if you could give us a little more information on that subject. How does the number of men now in uniform, for example, compare with that of World War II?

Mr. BERGSON. It is much below it, Senator.

Chairman PROXMIRE. What is the comparison?

Mr. BERGSON. In 1944 the Russians had about 12 million men under arms.

Chairman PROXMIRE. And now they have three?

Mr. BERGSON. On the order of three. So there is quite a change in that regard downward. On the other hand, there has been an enormous increase in the postwar period in expenditures on weapons.

Chairman PROXMIRE. If they are spending as much—were these in real terms?

Mr. BERGSON. The figures I cite here are intended to be in real terms.

Chairman PROXMIRE. So that they have one-quarter of the manpower?

Mr. BERGSON. That is right.

Chairman PROXMIRE. And yet they are spending about as much. Does this mean that the manpower producing these weapons would be three times as great as the manpower producing weapons in World War II, or twice as great?

Mr. BERGSON. Not necessarily. The output has increased. And remember, the munitions component of defense is a very large component. The manpower component has been the smaller one. So if you have a cut of, in this case 75 percent in regard to manpower, you don't have to have a comparable increase in the munitions component to get the results I have.

Chairman PROXMIRE. Compare this in two ways.

First, how does the GNP proportion compare, World War II and the present?

Mr. BERGSON. Well, it is certainly far, far larger now than it was then—

Chairman PROXMIRE. I beg your pardon. You are not saying the percentage of GNP devoted to defense is larger now?

Mr. BERGSON. I am sorry, you said percentage?

Chairman PROXMIRE. Yes.

Mr. BERGSON. No; the percentage of the GNP going to defense is much smaller now. The defense expenditures were a much larger percentage of the GNP in 1944 than they are now.

Chairman PROXMIRE. Three or four times as large a proportion at least, I take it? 10 percent, 15 percent perhaps now, and then 50 percent?

Mr. BERGSON. Well, maybe not 50 percent, but certainly a very big figure.

Chairman PROXMIRE. Now, second, give us the comparison of the United States. How does our absolute amount spent on military compare with—if you have it—the 1944 figure?

Mr. BERGSON. I think current outlays are much below 1944. But for 1944 I haven't made any comparison for the United States which would break our military aid. Our military aid to other countries, lend-lease, was very large in 1944. And that is included in our usual national defense figures for 1944. For purposes of comparison, one ought to omit the lend-lease outlays from our 1944 budget.

Mr. KINTNER. I think there is one point in making this comparison that you should take into account, and that is the difference in pay scale of the Soviet forces and our own, which permits them to do things which we cannot do. An example, I saw a Columbia Broadcasting film of the Soviet recruit going into the military service. He was not given any salary for his 2 years. He was given a daily allowance to buy a pack of cigarettes and maybe a piece of candy. But if you take our total pay, because our soldiers are representatives of an affluent society, it takes up a far higher position of our total defense budget—over a quarter of the total—than does the Soviet military pay.

That is a very important factor.

Senator PROXMIRE. In addition to that, as I was discussing after the hearings yesterday with Mr. Hunter, you have a great discrepancy between supply and support to combat in this country as compared to the Soviet Union. I have seen some figures that indicate we have a ratio as high as 10 to 1 in Vietnam of supply and support troops to one in actual combat, whereas the Soviet ratio is 3 to 1, or less. And this is considered by many to be extravagant. The 10-to-1 ratio is partly a matter of comfort, and I believe it is also partly a matter of technology.

Mr. KINTNER. And the long distance we have to go to deploy our forces. Their troops are presently all inside the Soviet frontier except for those deployed in Eastern Europe. But the logistic support problem favors them: First, they are more austere, and they support their forces at less distance than we do.

Mr. BERGSON. May I add a word to what Professor Berliner has said on the usefulness of global data on Soviet defense expenditures?

Chairman PROXMIRE. Yes.

Mr. BERGSON. I do feel the data are of some value insofar as they help us gage the order of magnitude of the Russian effort, how it is changing, and also to what extent the changes that are occurring are coming in conflict with other demands placed on Russian output. Data of this sort also help us judge the Russian interest in arms control and disarmament measures.

On the other hand, I agree with Professor Berliner that these data have to be used with the greatest care in trying to formulate our own defense policy. And I join him in thinking that from this standpoint one ought to give great weight to the alternative physical data that are available on the Russian munitions-manpower strength in different areas.

Chairman PROXMIRE. You would place much more reliance on the physical?

Mr. BERGSON. Yes, on data, on the balance of conventional forces in Western Europe, data on missile strength, and the like. Maybe, in part, I would place more emphasis on some of these data because I have never worked very much with them. I may have greater confidence in them for that reason than is warranted. But in principle data of that sort are apt to be more illuminating regarding the kind of challenge we have to consider in formulating our own defense policy.

Chairman PROXMIRE. Do you conclude from this physical data that there is a greater disposition toward arms control in the Soviet Union than there has been?

Mr. BERGSON. I feel that the monetary data, together with the data on economic growth, and on competing claims, are illuminating in this regard. On this basis, I think that the Soviet Government is under very real economic pressure to limit expenditures. In this context I gave a fair amount of weight to the global data. In the other context, where one is judging what response to Soviet military activities is in order here, I would be inclined to give greater weight to the physical data.

Chairman PROXMIRE. How would the Chinese problem effect in your judgment the attitude of the Soviet Union toward agreement with us? Is it of sufficient importance so that this is really significant in your view?

Mr. BERGSON. I should think that the split with China has been one of a number of factors, perhaps the most important factor which have caused the Russians to review their foreign policy throughout the world in recent years. There are many many evidences of a rethinking of new paths that are being taken by the Russians. One could argue that this might make them more amenable rather than less amenable to some kind of collaboration with the United States, at least one to limit defense expenditures. Of course, in the long run they must be deeply concerned about the prospects of industrialization of China, and the growth of a nuclear potential there. They clearly would be reluctant to take any action now that would limit their freedom to respond to a growth of Chinese military power in the long run.

Chairman PROXMIRE. I cannot see any reason why this Chinese situation would not make them more amenable to some kind of cooperation with us.

Mr. BERGSON. In the short run they might very well feel that this is an appropriate response. In the long run they must keep in mind that this response should not limit their capacity to grapple with the Chinese challenge.

Chairman PROXMIRE. I would like to ask you gentlemen, perhaps Mr. Berliner and Mr. Hunter, to comment on this:

Economic retardation and reform have been closely linked in the Soviet Union and Eastern Europe. The view of the Czech reformer Ota Sik apparently was that political and economic reform were inseparable. If this was valid in the Czech case, is it also so in the Soviet Union?

If changes in economic planning and management necessary to raise efficiency require political reform, then is the choice facing the Soviet leadership between a dynamic economy and a continuation of the current political system?



Mr. HUNTER. Maybe I could say something about the problem that the Russians and the East Europeans have faced in trying to conduct economic reform. The central difficulty is that the structure of relative prices is so distorted that it gives wrong signals to the managers of enterprises. When managers are instructed to try to maximize profits, they find that they are obeying very faulty signals, which lead them still to produce the wrong things. That is one problem.

Another problem is that there is continued tautness. The targets imposed from the center are still very ambitious. This means that the typical enterprise does not have the leeway that it needs to operate well.

A related difficulty is that there continue to be physical output targets imposed from the top for outputs which are inputs to other enterprises. The enterprise, therefore, is not free to move in trying to minimize its costs and be responsive to what consumers want. And because the system's directors have been unwilling to loosen up the environment within which enterprises operate, soon after a reform is launched you begin to get gluts and shortages cropping up which create small crises, and at least in Eastern European experience, these crises then provide a basis for the old line bureaucrats to raise a cry of alarm and say that everything is coming apart. There is a great temptation, then, for administrative intervention which in fact brings back the old system.

While the initial feeling in the United States that the Russians had gone over to a profit system was grossly exaggerated, and really not very much has happened yet to change the Soviet system, I expect that over the next 5 or 10 years there will be a streamlining or a loosening up of what has been a very rigid system. Here, to return to one of the lines of thought that Professor Berliner was pursuing, I think the Russians are now facing a difficult problem. Late 20th century modernization requires a kind of sophistication, a kind of imagination and initiative on the part of hundreds of thousands of people throughout the system, and a kind of flexibility and alertness and responsiveness that simply has not been part of the Soviet system in the past.

It is also apparent in some respects that the United States is more revolutionary than the U.S.S.R. Technologically that is certainly the case.

Chairman PROXMIRE. Is it the case? Do you really think the United States is more revolutionary technologically than the Soviet Union? I take it that Dr. Kintner might challenge that. And lots of people think that they are spending more on research and development than we are, that they are making great strides in the military area. I am just not so sure that we can accept that notion that we are more technologically advanced. I have always accepted that. I want to believe it. I certainly believe our system has been more productive in many, many ways. But if they are going to challenge us militarily, I do not see how they can do it until they have developed some technological capacity that they had not in the past. And if they have done this, it is a very interesting question to me as to whether or not this is not going to affect their political forms. Can they really restrain people and prevent discussion and debate and dissent and difference of opinion, and have the kind of technological advance which they have to have to match us or surpass us?

Mr. HUNTER. Not much is really known about what the sources of creativity are, or why one society is more pioneering than another. The Japanese have been as impressive as any people on earth over the last couple of decades, in the way that they have come forward, in everything from cameras to large tankers.

Chairman PROXMIRE. They have got one big advantage, and that is that they do not have any military budget at all to speak of.

Mr. HUNTER. Maybe the Russians should learn from the Japanese about that.

The Russians have long had a very good reputation for armor-plate on tanks. In the nuclear missile field, popular knowledge says that the United States is very good at miniaturizing our guidance systems, while the Russians still have to use very large, powerful, and ungainly kinds of equipment. But what I am trying to say is that, while I think the long, centuries-old Russian tradition of a highly authoritarian and disciplined society will not change, the Russian people have great talent and great capacity and over the next 50 years of Soviet life it will become a more flexible and open society, easier for Western Europe and Japan and the United States to get along with.

We will still confront each other with various national interests that are by no means identical. But it is not just a joke to say that the U.S.S.R. is less revolutionary than other parts of the world. Lenin's early hopes, as Professor Berliner said, have simply not been borne out by subsequent experience. The Russians are now struggling to find answers to the same kind of problems that people in North America and Western Europe are struggling to find answers to.

That reminds me, to go back to housing for a minute, of another comment. The Russians have been building apartment houses, not individual houses out in the suburbs. These buildings lack adequate service facilities on the ground floor. There is room for three or four stores, but not much more. They also lack parking facilities. Now that the U.S.S.R. is beginning to succumb to the passenger automobile revolution, I think there is going to be a great human tragedy in Soviet cities over the next 20 or 30 or 50 years, because once these buildings are built—they are reinforced concrete, and very durable—the Soviet people are stuck with them. The apartments are accessible to low-income workers, and they are subsidized so that the rents are very low, but the people who will be living in Soviet cities over the next half century, I think, are not going to be as well served as in other developed parts of the world.

Chairman PROXMIRE. Professor Berliner, did the military oppose reform in Czechoslovakia under the U.S.S.R., and why?

Mr. BERLINER. My information comes from the same source as all of ours in this respect, and judging from the *New York Times* and the reporters—

Chairman PROXMIRE. It has been a great day for the *New York Times*.

Mr. BERLINER. I have the impression that it was the military's action, and the constraints were on—

Chairman PROXMIRE. Is this reform related in the military view to military control and military budget? Why should the military oppose reform?

Mr. BERLINER. Well, have the military ever not opposed reform? The military is the force arm of a society, of any society.

Chairman PROXMIRE. I should think the military should favor some kind of reform. After all, as Dr. Kintner pointed out, they are putting a great deal of emphasis on research and development. You have to have technological advance if you are going to be able to have military success these days, that is the essence, the heart of it, it is more important than any other element.

Mr. BERLINER. I will withdraw that. There have been circumstances in which the military have been the promoters of reform in retrograde, unproductive, and unsuccessful governments.

One difference that might be worth noting is that between the military view of the technological problem and the civilian view of the technological problem. I agree with what Mr. Hunter said, that by and large the Soviets are lagging technologically. I think they agree, and I think this is a fairly universal observation.

It is sometimes asked in this context, if that is true, how do they manage so well in space and in military developments? The conclusion to which I am coming is that there is a big difference between the capacity of a society to undertake tasks which are primarily technological in objective, and its capacity to undertake tasks which are economic in the broadest sense. What I mean by that is that military and space production and R. & D. are primarily task-oriented. The job is to attain an objective with certain technical specifications in the minimal amount of time and with almost unlimited resources, in both countries. The criterion is technical, and its attainment depends on the engineering, mathematical, and scientific skills of the population. There is no question but that the Russians have it. Given the same resources, or given unlimited resources they can put up anything they want.

I think that is part of the reason for their success in this sphere. But it is a rather different matter to get the director of a textile firm, or a fish canner in Kamchatka, to put in the kind of effort that is necessary for technological progress into the packing of his goods, or into improvement of his technology. That is where the Russians have their difficulties.

It is in the mass industries, in the mass production of steel and industrial parts and equipment, which are not task-oriented but economic-oriented, it is here that they have their difficulties, and it is here that the structure of the economic system inhibits both technological progress and the level of technological attainment to which they aspire.

Therefore, I think it is no mystery that the military may be quite satisfied with the technological quality of the stuff they get. But the economy at large may nevertheless suffer from certain deficiencies with respect to the production of the mass objects of industrial and consumer use.

Chairman PROXMIRE. I want to call on Dr. Kintner in a minute, but I would like to ask you, how extensive is the military control over normal economic administration in war industries, and transportation, and construction, and so forth? And I wonder if the mobilization for the Czech invasion thrown any light on this question?

Mr. BERLINER. I have no information on that. I have no idea.

Chairman PROXMIRE. You do not know how extensive their control is over the war industries, or over transportation, construction, and so forth?

Mr. BERLINER. No.

Chairman PROXMIRE. Dr. Kintner?

Mr. KINTNER. I would like to comment that I agree with Dr. Berliner's analysis of the technological situation. We have overall technological superiority. But in the areas in which they have applied themselves they have done very well, and I think they have an increasing capacity to do better.

With respect to the questions just raised concerning the Czechoslovakian invasion, it appears that their rapid mobilization was facilitated by the fact that many of the trucks that were used on their farms were the same trucks that were used to bring the soldiers together and march them westward.

You raised a question about whether the military had the primary hand in the Czech invasion. It is my understanding that it was Gomulka, and Ulbrecht who told the Soviet political leaders that they had better do something about Czechoslovakia because they were afraid of the freedom coming in to their territory.

Which brings us to another question you raised:

Is it possible to have a dynamic economic growth without changing the political order? For the last several years we have been engaged in a study of revolutionary trends in East Central Europe. There we meet the dilemma that has been expressed here, that the technicians want the reforms, but then when it comes up to the party leaders, or the administrators, they are afraid of them, because if you really do have a decentralized economy what happens to the role of the Communist Party? And these people, for better or for worse, have a great interest in preserving their role—

Chairman PROXMIRE. You are implying that the military would favor reform in this sense as distinct from the Communist Party?

Mr. KINTNER. That is correct. They would like to have a more viable society, I am certain.

Chairman PROXMIRE. Viable in the sense of a more efficient economy?

Mr. KINTNER. More efficient economy and more efficient resources availability.

You raised another question about why would the Chinese-Soviet split not make the Soviet more conducive to arms controls. There may be reasons for it, but there are two reasons against it. In the first place, whether the Soviets are revolutionary or not—and I tend to agree that they are rather conservative—they claim to be the leading revolutionary power on earth. The Chinese Communists have already accused the Soviet revisionists of colluding with the American imperialists. So they have to be very careful about how openly they try to reach agreement with us. There has been a lot of counter-flak because they still have a lot of revolutionary action going for them in various parts of the world which are related to their revolutionary professions, whether these professions are real or not. I am speaking of Nigeria and the Middle East, and to a certain extent of Cuba in this hemisphere.

The other thing is that the Chinese nuclear threat will first become more apparent to the Soviets than it will to the United States. I am

certain that the Chinese Communists will get intermediate-range missiles before they get ICBM's. And I doubt very much under these circumstances if the Soviets are going to throw away whatever ABM system they deploy around Moscow, or whatever ABM system they are developing. And that happens to be, as you know, one of the crucial aspects of both the present Safeguard decision and the prospects for arms control in the coming SALT talks. These two factors do not necessarily imply that the Soviet-Chinese situation is going to, for the short term, make the Soviets more amenable to settling with us. I personally believe that as the Chinese technological base improves and if they still maintain their very chauvinistic policy, that over a period of time the Soviets and we might come together on an entirely different basis than now possible.

But that is a longer term prospect than the 4 or 5 years ahead which have to be considered in this year's appropriations.

Chairman PROXMIRE. Gentlemen, thank you very very much. I apologize for having detained you so much. But you are a fascinating panel. You have certainly greatly improved my understanding. And I think you have made an excellent record that will be most useful to the Congress in our deliberations on this. It was said by a number of competent witnesses that the real heart of our military problem is an understanding of what we face in the Soviet Union. And I cannot think of any four men who are more competent to give us an understanding of this than you gentlemen. You have done a splendid job, and I am most grateful to you.

This afternoon we will reconvene at 2 o'clock to hear David R. Mark, Deputy Director of Research, Bureau of Intelligence and Research, Department of State.

(Whereupon, at 12:50 p.m. the committee recessed, to reconvene at 2 p.m. on the same day.)

#### AFTERNOON SESSION

Chairman PROXMIRE. The subcommittee will come to order.

We are delighted to have this afternoon Mr. David E. Mark.

Mr. Mark has a long record of service to his government. He has been political adviser to U.S. Armed Forces in Korea, member of U.S. Mission in Berlin, First Secretary to our Embassy in Moscow, Director of the Office of West European Research and Analysis in the State Department. He was the author, in 1965, of "Cessation of Nuclear Weapons Tests: Problems and Results in Negotiations to Date." He is currently serving as Deputy Director for Research, Bureau of Intelligence and Research, Department of State.

#### **STATEMENT OF DAVID E. MARK, DEPUTY DIRECTOR FOR RESEARCH, BUREAU OF INTELLIGENCE AND RESEARCH; ACCOMPANIED BY DR. HERBERT BLOCK, SPECIAL ASSISTANT IN THE OFFICE OF RESEARCH AND ANALYSIS FOR THE U.S.S.R. AND EASTERN EUROPE**

Mr. MARK. I would like to introduce Dr. Block of the Office of Research and Analysis for the Soviet Union and Eastern Europe, who

is an economist of note in regard to the analysis of the Soviet Union and its affairs.

I think it is rather clear from the introduction which you gave that, unlike some of the distinguished academic witnesses who testified before you yesterday and earlier today, I am not specifically a scholar on Soviet affairs, but rather a Foreign Service officer who served in Moscow in the late 1950's, who has kept in close touch with Soviet developments from a foreign policy point of view, and who is now responsible for supervising some of the Department's analytical efforts and happenings in the U.S.S.R., as well as in other areas of the world, I hope that I can answer whatever questions you may have.

#### THE PSYCHOLOGICAL ENVIRONMENT FOR MAKING NATIONAL SECURITY DECISIONS IN THE U.S.S.R.

The starting point in an examination of Soviet national security attitudes must be the historical experience and basic thought patterns which are in the forefront of the minds of the present Soviet leadership, and indeed of any group of Soviet leaders likely to occupy the Kremlin for the next decade or two. Their frame of reference is conditioned by the revolutionary struggle which brought their state into existence over 50 years ago against rather strenuous efforts by both domestic and foreign anti-Communist forces to throttle the Bolshevik cause at the very outset.

Every Soviet chieftain, from Lenin on, has been acutely sensitive to external threats to the Soviet regime, and there has, as a consequence, been a great effort almost all of the time to build up and to maintain as large and as effective a military establishment as was possible, given the physical resources of the country and the competing demands of other top level state priorities. We need not decide whether the present leadership believes the fanciful tales unfolded at Stalin's purge trials of the 1930's about the existence of vast international conspiracies implicating many former Bolshevik leaders and aimed at the downfall of the U.S.S.R. Even without this, the 1941 to 1945 holocaust of World War II as a result of the German invasion, as well as the international cold war tensions since then, undoubtedly provide more than adequate motivation to the men of the Kremlin to support a very large defense establishment. The growing Communist Chinese threat only strengthens the incentive still further, and Moscow has already showed concern for a possible Chinese-Western coalition some day against the U.S.S.R.

But history is not the whole explanation: basic outlook as expressed both in ideology and in the approach taken toward a definition of Soviet state interests, is also very important. The primeval assumptions of Marxism-Leninism are that there must be implacable hostility between the proletariat and the bourgeoisie, and that the antagonism will also inevitably exist between the states which the workers and the capitalists respectively come to control. By unchallengeable definition, Moscow puts itself and its allies into the category of worker-controlled socialist states, while it relegates to the capitalist-dominated imperialist world the United States and at least the other developed countries of the West. Although the doctrine of the peaceful coexistence of the two inimical social and state systems has been accepted in the Kremlin

for some years now, as a device for explaining why actual war need not break out between the two camps, this conclusion is said by Moscow to be valid precisely because the Soviet Union and its allies have built up such a degree of military, economic, and political power that an effective deterrent operates to restrain the undiminished aggressive intent of the Western states.

This outlook does allow for some refinement. The Soviet leaders are willing to postulate variations for different Western countries and different Western regimes at different times in the degree of immediate aggressive intent toward the Soviet Union. They accept the idea that on certain specific issues, for example, United States and Soviet interests may happen to coincide and may make desirable cooperative, coordinate, or even joint action by the two countries. Indeed, we hope that this is currently true in such problem areas as the Middle East and the limitation of strategic arms. Nonetheless, as indicated again only last week by the declaration of the Moscow Conference of 75 Communist Parties, the focus of Soviet political analysis remains fixed on the hostility between the U.S.S.R. and the West rather than on their occasional coincidences of interest. It would appear, unfortunately, that it will take many years before the balance of Soviet attitudes shifts the other way. For the present, therefore, ideology reinforces the predisposition toward a sizable military establishment for which Soviet historical experience since 1917 has already created a foundation.

Closely tied in with all of the foregoing is the fact that a rather good case can probably be made for the maintenance of large and modern Soviet military forces, even when the non-Communist approach of traditional geopolitical analysis is employed. The Russia of the czars also tried to cut as impressive a military figure as the resources then available permitted. The country has a huge territory to defend, and it has a number of neighbors or near neighbors which, for several centuries, have had ambitions conflicting with those of Russian rulers. Moreover, the Soviet Government has the same sorts of national aspirations as its prerevolutionary predecessors. It wants to be influential in world councils, as befits a country that has been a great power for over two centuries. It seeks to influence the policy of lesser states. It does not wish to be a land-locked giant, but to have ready access to the seas and oceans of the world. All of this requires a large military force—one which enables the Government to project itself physically beyond its borders either with actual strength, or with a credible image that the U.S.S.R. might come to apply military force. For better or worse, we must acknowledge that military power still counts for much in international political and diplomatic dealings.

There is another aspect to this problem which flows from the domestic institutions and political habits of the Soviet system. Bureaucratic or police force, pressure, and directive constitute key elements for influencing the behavior of Soviet society. I do not mean to imply, of course, that Soviet society does not generate some enthusiasms to help get its tasks accomplished or that other societies lack a coercive aspect. No society can progress without its quotient of inspirational motivations and, on the other hand, every effective government and

social system must ultimately have some form of police power available to it for survival at critical moments at internal challenge. However, American society undoubtedly leaves a much greater scope for the management of its affairs by nongovernmental, voluntarist instrumentalities than is the case in totalitarian states. Furthermore, the very exercise of democratic political machinery mitigates the element of force applied on the citizenry from above and increases the area left to collective self-management.

I might add, incidentally, that the Supreme Soviet has no meaningful lawmaking role in the U.S.S.R., to say nothing of any influence on foreign and defense policy. Indeed, a hearing such as this one would be unthinkable in Moscow.

The Soviet leadership has always been uncomfortable with an uncontrolled environment. It is fearful of spontaneous developments which it has not planned and managed. It is strongly inclined to maintain and rely upon an enormous bureaucracy with much duplication and overlapping of controls. It is expert in the organization and use of force at home in furtherance of the programs and objectives of the regime.

In this atmosphere, it is only natural for Moscow to have the same feelings about the manipulation of the world scene that it has about its own society. In this context, military force is likely to seem to be the predominant source of international influence, and it is extremely difficult for the Soviet leadership to conceive of any substitute for such force. Certainly, the concept of a world rule or law or global political entity cannot be adequate or even understandable to the Kremlin. Its immediate reaction is to ask who would establish the rules, and who would enforce them. For whose economic or class interest would the global organization work? In its perception, such internationalism is unthinkable while the basic Communist-capitalist rivalry persists. Under such conditions, a powerful Soviet military machine is the only acceptable safety factor.

To sum up, if the Soviet approach to national security problems does indeed follow the considerations that I have outlined, it is quite evident that not too much leeway remains for the United States in determining our own approach to this world in which we will inevitably face such a formidable Soviet military challenge. We will also require a very substantial military machine, unless and until effective international agreements are reached which provide reliable alternative paths to U.S. national security.

Of course, even after the need for U.S. Armed Forces is accepted, we are still left with many specific decisions to make about the size of those forces and about the particular weapons with which they should be equipped. Moreover, we should never retreat from the effort to mitigate as much as possible the intensity of Soviet-American rivalry, and indeed, to channel it into less dangerous and less expensive forms. Americans may even set for themselves the long-range objective of helping both peoples to perceive each other in less hostile terms and in less stark contrast of good and evil so that we can steadily increase cooperative endeavors. However, right now, there is no doubt that unless we are prepared to put ourselves and the rest of the non-Communist world at the mercy of the Soviet leadership and of the



military establishment which the Soviet leadership controls, we have no choice but to match Soviet power with adequate strength of our own.

#### NONPARTICIPATION OF THE SOVIET PUBLIC IN DECISIONMAKING

It is rather important to note a very major difference between the way in which the Soviet and American political systems deal with issues of national security. Unlike the United States, the Soviet Union has no tradition of open debate of problems in foreign or defense policy. To some extent, this is merely another facet of the authoritarian nature of the political machinery of the U.S.S.R. The public has almost no opportunity to influence decisions on any major issue of national concern. Determinations are made by the top party leadership, customarily without public knowledge that the issues in question even exist, much less are being decided.

It is true that in some matters related to economic management, agricultural development, and cultural affairs, there may be a modicum of leadership consultation with the public, or at least with a broad cross section of the elements of the Soviet "establishment" who are concerned with the particular question. On national security problems, however, the decisionmaking circles are extremely narrow. Indeed, the number of people who are even at all knowledgeable of these issues is unbelievably small. The assiduous reader of American press reports not only has reams of information about U.S. defense matters, but is undoubtedly better informed about the size and substance of the Soviet military machine than all but a tiny group of Soviet officials.

It is an interesting, if disturbing, fact in this connection that the overwhelming mass of Soviet citizens not only accepts this state of affairs but considers it a normal and natural phenomenon. The vast bulk of the citizenry, including university graduates, is not trained to think of foreign policy problems in any context other than in the clichés of Marxist-Leninist indoctrination. No critical faculty is developed for the analysis of national security issues, and, as already noted, no objective information is provided either. There is a very pervasive feeling not only that Government leaders are the proper people to handle these matters without second guessing from the populace, but also that whatever its other faults, the leadership is patriotic and devoted to the national good. There is an immense reservoir of chauvinism in the average Soviet citizen which leads him uncritically to assume the righteousness of Soviet foreign policy. These instincts are built up both by gross distortions of foreign events in the news media and by heavy indoctrination aimed at producing positive identification and association with such slogans as "proletarian internationalism," "Soviet socialist patriotism," "defense of the motherland," and "anti-imperialism."

The net result of this circumstance is that the Soviet Government and Communist Party have an almost totally free hand in determining the national security policy of the country. Whatever the course of action decided upon to cope with a particular foreign policy problem, the leadership will explain it to the people under appropriate standard slogans and will make selective use of facts or half-truths

to support the line adopted. There may, of course, still be residual public doubts or even some latent opposition, but this cannot generate any real pressure on the Kremlin. In any event, the bulk of the populace accepts decisions with greater or less attention or indifference, depending on the gravity of the matter involved. Only rarely do intimations reach the public through the mass media that there might have been any hesitations or debates within leadership circles about the policy to pursue. However, even such hints of disagreement or indecision will not induce a more active public reaction, since there is no institutional vehicle by which the public can concern itself with the making of foreign and defense policy, as well as no tradition for such participation.

The problem for the leadership is not, therefore, to find some means for garnering mass support in the national security field. Such backing can be taken pretty much for granted. Nevertheless, even in the absence of domestic political constraints the Soviet decisionmakers still have the problem of settling troublesome questions among themselves. They have to take into account existing Soviet capabilities, the position and probable reactions of foreign governments, and the physical and economic limitations which restrict their choice of a policy.

#### INSTITUTIONAL CONSTRAINTS ON SOVIET DECISIONMAKING

The men who have the power to make the crucial decisions are few in number; usually, no doubt, the 11 members of the Politburo of the Central Committee of the Soviet Communist Party are sufficient. Although General Secretary Brezhnev gets the publicity and protocol spotlight, he seemed to be only the first among equals, and none has the authority even of Khrushchev, much less of Stalin. Decisions are apparently taken after discussion, sometimes by vote, sometimes by consensus.

Many observers have hypothesized about factions in the Kremlin, and they have been particularly fond of such dichotomies as "hardliners" or "hawks" versus "softliners" or "doves." Although such firm divisions may exist, there is no reliable evidence available to support this proposition; and it actually appears improbable that the present Politburo would have lasted intact this long if its members lined up persistently in two or three fixed groupings. This is not to say that differences of opinion do not arise in the Politburo as different issues are debated. Even though all members may start from the same outlook and premises, there is no inherent reason why their analyses and judgments should be identical and unanimous in a Marxist-Leninist framework, any more than analogous assessments are in a non-Communist decisionmaking environment. Probably, however, the members take no consistent positions in a precast faction, but constantly realine themselves according to their views on the many varied issues on which they must pass.

Rather more significant for the outside world is the type of decision which a body of 11 men, all fairly equal in power and position, is likely to take. Clearly, the effort will be to get all members to agree so that all share responsibility for the consequences. On some issues,

therefore, the Politburo may find it preferable to defer a decision instead of taking it on a majority vote basis, with a minority in opposition. If this is the situation, then those decisions which are made, especially on the basis of unanimity, are likely to reflect the lowest common denominator of consensus. Controversial and imaginative courses of action probably prove almost impossible to adopt. Caution and conservatism will be likely to prevail. This may avoid reckless moves and favor "playing it safe." But, at the same time, it will promote rigidity and encourage the Politburo to stick to policies that have become outworn and harmful. It will make it exceedingly difficult to institute and implement reforms even after most Politburo members feel them to have become necessary, unless all find themselves in agreement.

Given the equilibrium and lack of dominant personality in the Politburo, various special interest groups in the society which have spokesmen near the top of the party hierarchy may well find it easier than in Khrushchev's day to plead their cases and get some of what they want. The top military professionals are one such group, and they probably provide continuing coherent, single-minded, and persuasive arguments in favor of promoting maximum defense preparedness. Moreover, the military outlook is probably appealing to the conservative views of the Politburo. Both groups tend to be intolerant of intellectual dissent and both espouse ideological orthodoxy. In addition, the military machine has lately been highly valuable in carrying out foreign policy, whether it be the occupation of Czechoslovakia, protection against the alleged Communist Chinese military threat, or the support of Arab allies in the Middle East.

Naturally then, there is close and frequent collaboration between the Party's leaders and the military chieftains. The top men sit together on the Defense Committee, which seems to be a sort of limited National Security Council for discussing issues related to the military field. However, the military hierarchy is far from the equal of the Party hierarchy in the effective exercise of state power. Almost 90 percent of the officer corps—including all of the senior generals—belongs to the Communist Party and is subject to its discipline. The Main Political Administration of the armed forces, which maintains units for political indoctrination and for gathering data on the military mood down to company level, is simultaneously a section of the Party Central Committee. And, of course, the KGB of Secret Police maintains pervasive surveillance of personnel in the forces, as it does throughout Soviet society.

There is thus no institutional arrangement through which the military can form itself into a cohesive political force, much less one that can act in opposition to the Party apparatus that holds all the levers of power. It is instructive in this connection that there is no military man on the Politburo—even Khrushchev kept Zhukov there only a few months in 1957 before forcing the marshal's retirement. The proportion of Central Committee members who come from the armed forces has continued for many years at about 9 percent.

It need hardly be added that the same considerations apply even more forcefully to other potential "pressure groups," such as the managers of large industrial plants of complexes. The views of these men are

undoubtedly sought and respected, and the managers themselves have substantial prestige. However, they are unlikely to be able to exert significantly leverage on the Kremlin to get their narrow group interests satisfied, if these interests do not coincide with the Politburo's own evaluation.

#### THE MOBILIZATION OF THE SOVIET ECONOMY FOR NATIONAL SECURITY OBJECTIVES

In the first round of testimony before your subcommittee, witnesses went into great detail on the means by which the U.S. attempts to match or even to keep ahead of the Soviet defense establishment. I do not think that the essential picture is very different when looked at from Moscow's point of view. Apart from such success as we both may come to have in maintaining the balance of force at a lower level through arms control agreements, the Soviet Union must assume that it will have to deal with a constant and large American defense effort. A continuing arms race, such as we now find ourselves in with the Soviet Union inevitably feeds on itself, and under modern technological conditions becomes ever more costly.

On the technological side each of the two major rivals will retain the services of a large contingent of defense related scientists and engineers who can devote themselves to improving existing weapons systems, to conceiving new systems, and to keeping up with the systems developed by the enemy. For this purpose, the Soviet Union maintains a mass educational system designed to turn out hundreds of thousands of people with proper skills for the defense field, as well as a large variety of institutes where research and development work can be pursued under the overall coordination of the Government. The problem for the Soviet leaders, as for our own, is to insure that the rival power does not get a significant lead in some important military field, that the national armed forces are maintained at an adequate level of strength and proficiency, that new weapons systems are procured on a timely basis in sufficient quantity, that resources are wasted as little as possible in this process, and that the national defense effort be worked out in such a fashion that it does not prevent the accomplishment of other national goals of high priority.

I think that we have sufficient historical perspective now in regard to the Soviet Union to be able to conclude that the Soviet Government is able to impose an enormous burden of sacrifice on Soviet society generally in order to achieve the national security objectives which the regime deems to be essential. This does not mean that the regime will go out of its way to impose heavy defense burdens on the economy; quite clearly, the technical problem of managing the economy and maintaining harmony within the higher echelons of the bureaucracy is much simpler to handle when the resources do not have to be diverted so heavily to military ends. It also does not mean that it is easy to impose such sacrifices; obviously, a low level of motivation can worsen the problems of the leadership in imposing top priority for military objectives when the immediate aim of a force buildup is no longer to repel a foreign invasion of the homeland. However, it does imply that the Soviet Union is not likely to be forced to fall behind the United

States in any program it finds it appropriate to undertake. The priority given to national security by the Kremlin is too high to permit of any such outcome.

### THE SOVIET ECONOMY

Western economists who study the Soviet Union have run into some problems in calculating an accurate figure for the gross national product (GNP) of the U.S.S.R. Not only are many data lacking which are important for an estimate of Soviet GNP, but it is difficult to translate such Soviet figures as we have into meaningful American value terms. Economists find it hard to compare Western economies, where price formation is on the whole competitive, with the Soviet economy, which has a system that assigns prices to output more or less arbitrarily by bureaucratic processes, rather than on the basis of market activity which reflects the relative scarcity of commodities and factors of production.

Nevertheless, looking at matters in very broad terms, it is probably not too far off the mark to conclude that Soviet GNP is now close to 50 percent of American GNP, and a bit over 40 percent on a GNP per capita basis. (This ratio is obtained by calculating the GNP of both countries in ruble as well as in dollar prices and then taking the geometric average of the size comparisons in rubles on the one hand, and in dollars on the other.) This annual output must maintain a defense establishment that has capabilities similar to the American one, a space program about as large as our own, and both an industrial investment program and a pattern of technological and scientific research and development that Moscow hopes will enable the U.S.S.R. in due course to catch up with the United States' lead. While these priority matters are being attended to, the civilian economy must be maintained with some annual signs of tangible improvement, agriculture must be improved from its still relatively unproductive state—unproductive, that is, in comparison to the advanced agricultures of the world—and a general lag in housing and civic facilities, in road transportation, in modern hospitals, in mass communication facilities, and in other aspects of modern infrastructure must be overcome.

In reviewing the options open to the Soviet leaders for satisfying the various claimants to large share of the Soviet GNP, some general observations are in order. It is a basic fact that, on its own terms, and however inefficiently by Western standards, the Soviet economy is quite fully employed. A significant increase in allocations to any major and use, such as greater defense procurements, cannot easily be met out of idle reserves; the only real recourse is to cut down on allocations to other sectors. In saying that increases cannot be met out of idle reserves, I do not want to imply that there are no idle reserves; they exist, but mainly for ideological and institutional reasons, the regime has difficulties in tapping them.

An additional fact is that the Soviet economy, with its bureaucratic methods and irrational price structure, is wasteful of its resources. Capital is ill-applied and badly utilized. To compare the U.S.S.R. and United States, for example, both countries have been expanding GNP during the past 10 years at roughly the same rate

of about 5 percent per annum. However, the United States obtains this growth by investing in private and public fixed assets—for example, not counting inventory changes—18 percent of its GNP at factor cost, while the corresponding Soviet share is almost 30 percent.

One particular reason why investment in Soviet-type economies has always been inefficient is the much-criticized “dispersion of funds” is too many investment projects at one time without adequate preparation and management. Construction bogs down and funds remain tied up for inordinately long periods with no productive return. In 1968, for example, after subtracting the cost of equipment out of total investment figures, uncompleted construction came to 130 to 140 percent of the year’s investment in industrial plant and residential housing construction.

In the manpower resource field, another Soviet economist last year suggested publicly that 25 to 30 percent of the industrial labor force, was “superfluous.” The total Soviet labor force is 50 percent larger than the American, even though its population is only 20 percent greater. This is accounted for by the high employment of women.

The inefficiency of Soviet agriculture is notorious. It produces for a population almost 20 percent larger than that of the U.S. farm output valued at three quarters of the American total with roughly two-thirds more land, about seven times as much labor, and even with investments that in recent years have, in real terms, been three times as large as the annual investments in American agriculture. Small wonder that at factor cost, agriculture still accounts for one-fourth of the Soviet gross national product, as against 3 percent in the United States. Despite this, however, farm investment programs aimed at improving this dismal record, are constantly being raided for higher priority goals. Or as the Finance Ministry journal put it this year, in a rare public allusion to defense pressures, appropriations for investment in agriculture have remained below plan because of the “strained international situation.”

The size of defense and space appropriations is also a critical factor in the behavior of the rest of the economy. For example, in the Korean war period, a significant increase in the rate of Soviet military hardware procurement adversely affected the rate of investment in machinery and equipment, while in the mid-1950’s a stable or even declining rate of hardware procurement permitted the investment rate to climb substantially. Since 1960, however, there has been a concomitant decline in both sectors, and this shows, that other factors must also be taken into consideration. These include the quality of the planners’ policy decisions, which can be wasteful and erratic, the overall level of skill of management, changes in the hours worked, fluctuations in labor morale, and so forth. Thus, it is possible that even a leveling off of arms procurement would fail to stimulate an equivalent rate of investment growth.

Consumption can also be affected by variations in the defense buying, though largely in an indirect fashion. Increases in consumer electronic goods were probably delayed for many years by advanced weapons build-ups and military communication needs. An increase in the production of military vehicles still makes itself felt in the output and delivery of agricultural machinery. Moreover, many large arms fac-

tories, which turn out pots and pans or small appliances when they are not fully utilized for defense needs, will drop this output as soon as an increase in military orders comes along. Finally, the demands for virtual self-sufficiency in raw materials, which the Kremlin demands for political-military reasons, often results in an uneconomic use of resources and high costs for many of the ingredients which go into manufactured consumer goods.

The present Soviet regime, confronted with rival claims for defense, industrial investment, agricultural investment, and consumption in an economy that was, for all practical purposes fully employed, decided, soon after its accession to power in 1964, to follow two sets of policies. One course favored higher defense outlays and boosts in agricultural investment and consumption as against the more traditionally pampered industrial investment, while the other policy initiated economic reforms. Undoubtedly, the new consumer emphasis was welcome, in spite of the continuing almost universally low quality of the output and the endemically woeful deficiencies in the field of consumer services. Yet, even with this additional favoritism, the quantity of consumer goods and services available still remained far below demand as expressed in available money supply. The suppressed inflation in the Soviet economy is well evidenced, for example, by the fact that during 1968, the total value of saving bank deposits rose by just over 20 percent. Expressed in another way, the increase in deposits amounted to 40 percent of the total 1968 increment in the money income of all households—a sure sign that items were not available on which to spend earnings.

Since not even a totalitarian regime can eat its cake and have it too, something had to give, and it was largely investment in capital goods industries which suffered. A few figures may suffice. Based on Soviet figures, the average annual growth rate of productive investment in industry, during the three periods 1951–60, 1961–64, and 1965–67 dropped from 11.7 to 7.2 to 5.3. In heavy industry, the regime's pet, the decline was from 11.3 to 8.1 to 4.7 percent. Investment in equipment throughout the economy went down from 12.1 to 11.8 to 6.9 percent. Most of the relatively fast growth in this last category in the first years of the decade can be explained by Khrushchev's scheme of pushing the expansion of the chemical industry by procuring chemical equipment abroad and at home without regard to cost or to the economy's absorption capacity, as well as by the investment drive in agriculture.

The deceleration of investment activities has affected the growth of fixed capital assets. The value of plant and equipment in industry again according to Soviet official statistics expanded in the 1950's by an annual average of 12 percent, and from 1961–64 by 11½ percent, but from 1965–67 only 8¾ percent. The decline would have been more pronounced except for a Soviet policy to postpone the retirement of obsolescent plants and equipment, and to keep it going, if necessary, with the help of extensive capital repairs. This method may have been unavoidable in the absence of additional fund allocations for new investment, but it has prevented the bulk of the Soviet economy from modernizing fast enough and has probably widened the existing technological gap between East and West.

Thus, even this popular, if inadequate, attention to the consumption sector has had its price; namely, a depression in the growth and technological progress of heavy industry. This trend cannot please the leadership, for, as Brezhnev said last December, "A scientific-technological revolution, unprecedented in scope and pace, is taking place in the world." Since he also noted that technical progress has become "one of the main fronts of the historical competition between the two systems," meaning free enterprise versus communism, we may assume that the Politburo would like again to increase the growth rate of investments in industry. Surely, its members are aware of the serious lag in the U.S.S.R. in some of the most technologically advanced sectors, such as computers, communications, and electronics. Yet, the problem of where to find additional resources for industry remains very hard to solve, just because the use of economic resources through investment has become progressively less efficient; or in other words, there has been a decline in the growth of output obtained from each ruble of investment.

It is possible that the regime expected the economic reforms to facilitate decisions on resource allocation among defense, investment, and consumption by increasing the pie that becomes available for sharing among the claimants. The GNP growth rate has actually accelerated since the advent of Brezhnev and Kosygin in 1964. But, so far, this acceleration has quite clearly had nothing to do with the economic reform; it is due to vagaries of agricultural output, to the stress on consumer articles production already noted, and—last but not least—to larger military procurements. In any case, the reforms have not been fundamental enough to make much difference in improving overall economic efficiency and, besides, they have run into large-scale bureaucratic resistance. The central planners still exercise virtually all of the command functions that they ever did, and it is precisely this inflexible and topheavy rule that reinforces the inherent wastes in a nonmarket-oriented economy.

#### SOVIET DEFENSE ALLOCATIONS

One reason, though by no means the only one, for the distortions and strains in the Soviet system is that this economy must support a large, modern, and relatively efficient military machine, which can at least keep up with competition from the United States in the super-power arms race. As discussed earlier, the Soviet leadership and, indeed, the whole population is very defense minded. Despite frustrations among some elite interest groups at the high demands which military allocations make on the whole economy, there can be no doubt about the readiness of the party and Government to provide the necessary wherewithal.

Of course, this does not mean that the sky is the limit for defense in the U.S.S.R., and I have already mentioned essential requirements that must be met in other sectors of the economy. However, the regime has created a military production complex which is heavily endowed with brainpower, skilled labor force, new plants, and modern equipment in order to insure sophisticated output with good quality control. The result is that there are almost two Soviet Unions, an almost



schizoid approach to accomplishing matters in the country. Many Americans have talked of the admittedly deplorable pockets of poverty in the United States which persist amid general affluence. Speaking only a bit loosely, the proportions are about reversed in the U.S.S.R., where a highly modern, largely defense-space sector flourishes in a mass economic environment that is decades behind Western counterparts in most respects related to consumer goods, services, and housing.

Although the less advanced segments of the Soviet economy do impose some penalties even on the rather up-to-date defense sector, since the latter cannot easily call for help on civilian-related industries, research, and infrastructure, it is surprising how well, on the whole, Moscow has been able to keep its compartmentalized structure in operation. Obviously, however, success in this realm requires a tight system of political controls, a near monopoly of the communications media, a rigid system to keep official secrets, and very limited contacts by Soviet citizens with the Western World.

One statistical peculiarity results from this dichotomy in Soviet economic structure. If the Soviet defense space budget is somehow—and only imperfectly—translated into American prices, we estimate the total package of expenditures, in round numbers, is about \$60 billion. This is not quite three-quarters of the U.S. defense budget, but since the Soviet GNP is at best only half of the American, some observers have concluded that the defense share of Soviet GNP must come to 15 percent, rather than the American 10 percent.

In a strict technical sense, this is not true, and, in fact, Soviet defense costs, if properly calculated in ruble terms, also turn out to be only about 10 percent of Soviet GNP, expressed in rubles. This is a consequence of the fact that the defense sector in the U.S.S.R. is precisely the one relatively efficient, capital intensive sector, with rather high manpower productivity. As a result, factor costs are relatively low and do not contribute as much to Soviet GNP as do the high cost sectors, such as agriculture, which alone accounts for about 25 percent of GNP. Naturally, in this case, the statistic, while correct, can produce misunderstandings. Whatever the GNP calculations, any part of the Soviet economy that gathers in the services of the cream of the most highly educated and skilled manpower of the country and that in some ways comes close to monopolizing the use of scarce capital and of highly modern equipment and managerial and technological resources will be a severe drain on everything else.

I do not want to leave the idea that the Soviet defense establishment is a model of efficiency. As we have found in the United States, it is probably a sheer impossibility to attain maximum cost effectiveness and orderly scheduling in hardware procurement when a country is engaged in a heated arms race with a rival power of similar defense capabilities. Moscow must feel this even more keenly when its competitor is the United States, which is capable of pulling surprises in research, development, and the choice among weapons systems for production and development. To counter this, the Soviets must build some redundancy and excess capacity into their defense industry and must have some fat in the group of scientists and technicians more or less reserved for defense related activities. Moreover, there is the stimulus

of institutional competition within the Soviet establishment, such as the rival design teams of competing aircraft producers and the different shipyards producing diverse models of attack submarines.

Of course, there is no doubt that the regime, and even the armed forces themselves, would prefer to follow a meaningful set of priorities in defense allocations. Yet, priorities have been closely linked in the past to strategic doctrine, and we know that there were serious disputes in this area during the 1960's. We have the fairly recent historical example of Khrushchev's emphasis on the buildup of strategic missile forces, even at some expense to the standing of the more traditional ground forces. This has to some extent been modified since Khrushchev was ousted in 1964, and the U.S.S.R. seems to be moving toward our own flexible response doctrine, but it is apparent that much jockeying among the services for the favor of the political leaders still goes on. Arguments above the probable course of general war, if one should occur, about the proper tactics to be used in case of local, national, and global wars, and debates about the role of conventional forces still undoubtedly reflect differing views about where defense money should be spent.

Even when decisions are made to go beyond research and development into production and deployment, we find evidences of mistakes, and we can only imagine how many more such costly errors we have not learned about at all. Here I can mention the abortive Leningrad ABM system of the early 1960's which was abandoned after much money had been devoted to a start on deployment, and the Moscow ABM system which is evidently being curtailed in its deployment below obviously planned levels, apparently because of relative ineffectiveness. Several models of military aircraft have been displayed at recent Moscow airshows, but have never entered into the Air Force inventory. The performance of the Soviet Union's first nuclear-powered ship, the icebreaker *Lenin*, has been exceedingly poor. There have been examples of ICBM and space launcher development and production which have apparently not produced the results hoped for by Soviet defense planners, and the same may well be true of various projects in the expensive fields of radar, electronics, and computers.

We do not have any information on whether Soviet defense costs for individual weapons systems involve great overruns above planned estimates, since these matters are state secrets. However, I have already referred to the great inefficiency which has attended Soviet investment in the nondefense sector. Although military industries generally have a higher priority and hence are more efficient than civilian counterparts, it is clear that they are also wasteful. One of the rare public references to this came in a speech on April 24, 1963, by Khrushchev, when he said :

Even the defense industry has many reserves for increased production. Yet these reserves are not being used sufficiently. But because the production of defense industry enterprises is secret, the shortcomings in the work of such enterprises are closed to criticism.

Later on in the same talk he added :

The defense industry is coping successfully with creating and producing modern weapons. But these tasks could have been carried out more successfully and at a lower cost.

I am sure that the Soviet regime makes internal efforts to improve its defense production practices and to avoid waste in the military establishment. Naturally, the leaders are acutely aware of the competing demands on national resources. However, they essentially have a free hand in this whole area as far as any sort of public scrutiny and control is concerned. Undoubtedly, the foremost problem, as they see it, is not in the tightening up of defense machine efficiency, important though that is, but in keeping up with the United States.

In the past they have approached this entirely on a unilateral basis and have made their own policy decisions on resource allocation. Now, under the pressures of the situation, they are for the first time considering the attainment of some sort of understanding with the United States about constraining the scope of the arms race between the two countries. After all, it is the totality of this race with its accumulation of vast quantities of weapons, which is certainly a prime cause for the inefficient allocation of Soviet national resources; specific inefficiencies in the building of individual weapons systems and in the maintenance of the defense machine itself are only a marginally additional contributor to Soviet economic strains.

Chairman PROXMIRE. Thank you very much, Mr. Mark.

Mr. Conable had to leave for a rollcall. He will be back shortly. I have to leave for a rollcall. I should be back in less than 5 minutes if I can get down there right now and be there when my name is called, but I will be back in just a few minutes and I appreciate your waiting.

(At this point in the hearing a short recess was taken.)

Representative CONABLE. Mr. Mark, I wonder if we could start again. I am Congressman Conable, and I am sorry that I have only heard your testimony in bits and snatches. That is the story of our lives here.

I thank you for a very detailed statement. One thing that has been interesting to me in the discussions we have had today, has been that there has been very little discussion of the relationship of the Soviet Socialist Republic and Eastern Europe, and I realize that it is quite fashionable to talk about the Soviet world as being no longer monolithic, but I am wondering if in terms of military priorities it is not still necessary to consider the participation of Eastern Europe. Certainly Eastern Europe is participating heavily, for instance, in the aid being given by the Communist countries to North Vietnam, and although there may be some question of the reliability of Eastern European armies, particularly Czechoslovakian ones, still they are part of the Soviet bloc military power. Has there been a tendency on the part of the Soviets to expect increasing participation by Eastern European countries in the defense of the Soviet world at the same time it was upgrading its own defense priorities as expressed in the various statistics that have been given us showing increased defense expenditures on the part of the Soviet Union?

Mr. MARK. I think that the Soviet Union expects the Eastern European countries, that is those of the East European countries who are allied with the Soviet Union in the Warsaw Pact, which means all except Albania and Yugoslavia, to participate fully in the defense of the Warsaw Pact area.

I do not think that the Soviet Union envisages any military role for these countries that would involve the use of their armed forces outside of the pact area, but Moscow has probably equipped them and trained them with the aim of enabling them to fight whatever sort of conventional war might happen to break out in Central or Eastern Europe.

Clearly, the Soviet Union is anxious to bring the forces of its East European allies up to the highest possible state of readiness, training, and proficiency.

Representative CONABLE. Do they expect them though to contribute the same relative percentage of their gross national product to defense as the Russians themselves are willing to contribute?

Mr. MARK. If they have such expectations, they are probably disappointed. I do not myself have any exact figures on the percentage of GNP going to defense for East European countries, except that it is on the whole rather less than for the Soviet Union itself perhaps half in fact; just, as I may add, the contribution of our NATO allies, that is to say the percentage of their GNP, which goes into defense expenditures, is less than our own.

However, the Soviet Union is the main supplier of military equipment to these forces. There is quite a good bit of indigenous production varying from country to country. There are large-scale exercises and maneuvers that they conduct. These cover not only ground forces but also air forces. There have even been some joint naval maneuvers in the Baltic and the Black Seas.

The military command structure is fairly tightly integrated under a Soviet marshal, Marshal Yakubovsky at the present time, and of course there are probably arrangements for consultation on all sorts of topics of common concern; I should think logistics, tactics, training arrangements, and so forth.

Representative CONABLE. Since the pronouncement and enforcement of the Brezhnev doctrine with respect to Czechoslovakia has there been a notable tightening of the military ties between the Warsaw Pact nations and the Soviet Union?

Mr. MARK. Well, there is nothing particularly noticeable on the surface. The Czech army has sufficiently pulled itself together again to be able to participate, at least to a small degree, in some of the joint exercises with the others. There has been a definite decline in the verbal polemics between Rumania and the Soviet Union, although, of course, these recriminations have not entirely disappeared, particularly for people who are accustomed to reading somewhat between the lines.

There has not been any noticeable tightening up of command arrangements. There was a meeting of the heads of government of the Warsaw Pact countries, which took place in Budapest this year. And it was announced that some improvements in command arrangements had been undertaken, the details of which however were not given out.

Representative CONABLE. Is the party the most static element from the point of view of, well, hardening of the arteries on priorities in the Russian system, or does the party tend to be rather more progressive than some of the other elements?

Mr. MARK. Well, the party, it seems to me, is more in the position of an umpire. It has the authority to make the final decisions, and of course the Politburo at the top of the party apparatus is the place where decisions usually are made.

The party itself, or individual members of the party in important positions, may have different views about which sector at any given time deserves priority, but I should think that this is not mainly because they feel committed to one or another sector on a bureaucratic basis—unless they happen to have served for long periods in that particular sector, then there might be some feeling of commitment—but rather because they have to decide finally how the pie is going to be cut for the whole country. This is a difficult decision to make and can give rise to differences of opinion among the leaders.

Now each of the bureaucratic or group interest segments who are interested in obtaining more resources for their own particular sector, whether it be light industry or heavy industry or space attempts or agriculture, undoubtedly is not frozen into its past position. Each would clearly like more for itself. The party, of course, recognizes that not everyone can have more, and, therefore, it has to be conservative in its approach to these matters.

One would think nowadays, with a collective leadership that does seem to be operating collectively, without any one person in obvious charge and predominating over his fellows, that it would be rather difficult for them to reach a consensus on any changes that are quite radical in changing past ways of doing business or past ways of allocating resources.

There was a little bit more of this, as I have indicated at the outset of the regime in late 1964—early 1965, when they seemed to increase allocations to the agriculture and consumer sectors, as well as to the defense sector.

Representative CONABLE. You seem to be saying that the bureaucracy then has become the group with the special interests trying to advance these individual interests in terms of establishing the various priorities that are to be had in the government. As the bureaucracy has become more complex and more pervasive in the maturing of the Soviet system, has the party tended to try to broaden its base of support also as a counterbalance to this?

Mr. MARK. Of course the party is as pervasive as the bureaucracy, and as everybody else, because the party membership is made up of people who are engaged in all other sectors of the country. There may be a higher percentage of workers in the party organization itself who are party members than there are party members in the bureaucracy at large. There may be a higher percentage of military officers at senior levels who are party members than in the bureaucracy at large. However, the party has its people in every other institution of the society, and one of the ways in which the party operates to enforce its decisions on everybody else is through the discipline that comes from its concept of “democratic centralism.”

The orders come down from the top and party members are obliged to carry them out, whatever their official status or formal position in any other Soviet institution. Therefore the party in a sense cannot be differentiated from other groups. It includes them all.

On the other hand, it may be possible to say that some of the party people, the ones who are in the central apparatus itself come to have a rather special view of party affairs rather than a broader view of other particular elements in the government. A special party view may reinforce this duty which they have to mediate and allocate among the other segments of the economy.

They are in a position to draw the information up from everybody else, to see what is being proposed by everybody else and to weigh this against a broad variety of competing demands.

In essence perhaps, their work might be compared to the job that the White House does in keeping in coordination all the different branches of the American Government. The Party has that function, but its roots go down into every other institution.

Representative CONABLE. As the Party has been functioning lately, where are they most like to cut back, if they have to increase their military expenditure? Is it on future investment, or is it in agriculture, or where generally are they likely to cut back? Are consumer goods likely to be where they will retrench?

Mr. MARK. Well, I mentioned earlier that the journal of Finance Ministry, in its March issue this year, noted that there had been a cut-back in agricultural investment plans precisely because of the strained international situation, which means that there were some allocations to defense objectives that had not previously been foreseen. At some point, it is possible that there might be some cutbacks in the space sector. They might cut back anywhere else. I cannot project myself into their sense of priorities, and, of course, I do not have the feel that they must have for the competition and the strains within the Soviet bureaucracy, or even for what they hear, as it is filtered up to them, about the mood of the populace.

Representative CONABLE. I will defer to my chairman at this point. I probably will have some more questions later on.

Chairman PROXMIRE. Mr. Mark, you are second in command of intelligence for the State Department?

Mr. MARK. No. There is another man who is second. I guess I am third.

Chairman PROXMIRE. You are a top man at any rate in the State Department on Intelligence. How do you view the climate for arms control at the present time?

Mr. MARK. If you are asking about the climate in the United States, one of our cardinal—

Chairman PROXMIRE. What I am asking is this: I am very concerned as I am sure many are with what seems to be a very slow pace on the part of this administration in moving toward arms control. We had three of the four distinguished and competent witnesses this morning indicate that in their view the Soviet Union seems to be amenable to arms control discussions now as never before. You indicate in your statement this may be the case. I just am puzzled as to why the administration seems to be moving too slowly?

Mr. MARK. Well, Mr. Chairman, one of the cardinal rules of the intelligence business, as I have learned in the few years that I have been at it in the Department, is that we do not analyze ourselves. Our job is intelligence research on foreign countries and foreign areas. We are

willing to analyze the impact that U.S. policy may be having on foreign countries in terms of the reaction of those other countries, but we do not generally get into an analysis of our domestic activities, that is to say the decisions made by the policymaking branch of the Government.

Chairman PROXMIRE. I understand that. I am not asking for that kind of analysis. What I am asking for is why your own objective view of the prospects of arms control does not suggest that this would be a good time to move and move rather rapidly toward arms control.

Mr. MARK. I do not think I have suggested that it would not be. I believe that you read or heard, as I did, the statements which the President recently made on arms control. He also said that the Secretary of State had proposed a date for the inauguration of talks to the Soviet Ambassador before the Soviet Ambassador left for Moscow.

I can say that all parts of the Department certainly, and other agencies of the Government as well, have been participating on a very active basis, and with very large manpower devoted to the problem for the last several months now, in the preparation of the studies that are required before a reasonable and sensible position can be adopted that takes into account all of the interests of the United States in national security terms.

Chairman PROXMIRE. Again I would like to ask you in your capacity, do you think the Soviet Union has or will soon have a first-strike capability?

Mr. MARK. I came into the office this morning reading the New York Times.

Chairman PROXMIRE. This is the New York Times day. We had four or five references to that as the secret source of all knowledge this morning.

Mr. MARK. Well, I gather from the statements in the paper that the discussion of the first-strike question, in the testimony yesterday behind closed doors by the Secretary of Defense and Mr. Helms, resolved itself, partly at least, into a definitional problem. It is not entirely clear nowadays what anybody means by the term "first-strike." The Times I think said that the Secretary of Defense seemed to say that it was an ability of a Soviet missile to knock out an American missile in a hardened silo. Perhaps that is one definition that one may take.

I really do not know what you have in mind when you use that term in this question.

Chairman PROXMIRE. Well then let me put it this way. Do you feel that the Soviet Union has or will have the capability of knocking out all of our or a substantial proportion, an overwhelming proportion of our retaliatory capability, both the hardened ICBM's, our bombers, our submarines, all of our retaliatory capability? It seems to me the effect of the question, if we argue that they may have the ability to knock out some of our hardened ICBM's, the question is whether or not they will be able to reduce our retaliatory capacity so that a first-strike can succeed in the sense that it would not be mutual suicide.

Mr. MARK. I think that the question of whether a first strike can succeed without entering into mutual suicide is of course partly a problem of judgments that the people might make who would presume

to launch a first strike. Certainly I cannot project myself into the minds of the Soviet leadership and to know how they view this situation, or how they feel about such matters.

I do not think that any officer of this Government has suggested that, at the present time or in the next year or two, the first strike which you have just defined, would be a serious risk. The problem has been, as I understand it, that people are looking, as indeed they must look by way of planning ahead, since there is such a great lead-time on these questions of weapons systems, people have been looking toward, oh, the next 3, 4, 5, 6, 7 years, in other words, to the 1970's, and trying to foresee what the problem might be for the United States if the Soviet Union developed its weapons systems along certain lines, and along certain paths for which they have the option and capability of developing their systems.

Chairman PROXMIRE. Then let me ask in view of your knowledge and the knowledge of Mr. Block of the economic and technological capability of the Soviet Union, is it possible, distinctly possible, that by the middle 1970's the Soviet Union would have the first-strike capability asked about?

Mr. MARK. Whether it is possible for them depends on what we do. Obviously, if we did nothing, if we froze our own armaments at the present level, and they continued to amass weapons, to develop new ones, to improve their relative position, at some point, clearly, we would be in a relatively defenseless position as far as they are concerned.

Chairman PROXMIRE. Mr. Mark, do you know anybody, any responsible Senator or Congressman, or any irresponsible Senator or Congressman for that matter, who advocates that we do nothing?

Mr. MARK. No.

Chairman PROXMIRE. Isn't the assumption that we are going to have a substantial budget? The only argument is whether it might be \$70 or \$80 billion?

Mr. MARK. Certainly.

Chairman PROXMIRE. Or whether we have aircraft carriers or not. I do not know of anybody who suggests that we dismantle our nuclear deterrents.

Mr. MARK. No, no, I am not saying that. However, if we did nothing to expand our force or improve it, at some point the Soviet Union, if it went ahead by itself, would undoubtedly get some capabilities along the lines you indicated. No American official, whom I know of has advocated that, to be sure.

On the other hand, the question of just how much one must do and how much of an effort one has to make in the United States depends on a lot of judgments about where the Soviet Union is going, how rapid the obsolescence is in various types of our existing weapons systems, and to what extent they have to be updated, what the calls will be in the U.S. Armed Forces in other than a nuclear context, what the possibilities are for achieving agreements in arms control, and so forth; and it is precisely at this point that we get into the question of policymaking in the U.S. Government from which the intelligence community is mercifully spared.

Chairman PROXMIRE. Let me ask about something else. You talked



about the Communist Party, the Communist apparatus really being in charge rather than the military.

Do you feel that there is any prospect or likelihood that in the event of a strong military buildup on our part, and a stronger military challenge, that this could strengthen the military to a point where they would have greater authority or even dominant authority in the Soviet Union as compared with the apparatus as you have defined it?

Mr. MARK. Well, personally, I do not think so. I think that even during the Second World War, when of course the challenge to the very existence of the Soviet Union was at its height, the party maintained effective control. To be sure, in those days, they had Stalin running things, and the military leadership had been decimated in the purges of the late 1930's. Nevertheless the apparatus of party control was greater than just Stalin personally.

The various leaders of the Government at the present time, Khrushchev a few years ago, Brezhnev and others were themselves put into uniform during the war, made political Commissars in control of one or another army or region, and so forth. In other words, there are various ways in which the party can deploy itself, even in the most critical situations, to maintain its predominant position.

I do not think that the military has any institutional base from which it can challenge the party; and after all, for the military to pose such a challenge, or for any sort of challenge of that nature to develop, there would have to be a sort of confrontation, a contradiction, if you will, between the viewpoint of the military and the viewpoint of the party hierarchy as to what was necessary for the defense of the Soviet Union.

But it seems to me that the party hierarchy is at least as much concerned with national security, is at least as much oriented toward a large defense establishment, as is the military.

To be sure the party has other things on its mind. It has other sectors of the economy for which it is responsible, but I do not for myself posit any sharp clash of views between the military and the party on general defense needs.

Chairman PROXMIRE. It is possible, however, is it not, that the party might have somewhat more flexibility? The military may or may not get frozen into supporting a system identified with a particular level of armaments or kind of armaments, that kind of thing. The party might be, perhaps not but it might be, in a better position to respond to an easing in the arms race resulting perhaps from arms control agreement, resulting from a paring of our military budget, resulting from an easing of East-West tensions, and in this sense I take it that there is a possibility, or is there a possibility, that we might have a less military emphasis and less of a threat from the Soviet Union in the event that we can ease these tensions?

Mr. MARK. Well, the party is the command authority, and to the extent that there were to be any shift in that direction, it would have to come from the party. I mean the military does not make the final allocations of the budget, even though it puts in its claim to resources.

If the party decided after consultation with the military, of course, and with other experts in the Foreign Ministry and elsewhere, that a reduction in military expenditures had become feasible, I am sure

that they could put it into effect. In the past, Khrushchev was able to do this. In the early 1960's there was some cutback. He of course wanted to concentrate on missile forces at the time at the expense of some of the ground forces. There were repercussions of this; naturally, the generals who were more identified with the ground forces were not entirely happy with this shift of emphasis. In any event, however, I think even the party apparatus will be watching to see what happens during the arms talks when they get underway, before it begins to think about any reductions.

We all know that President Johnson started the approach to the Soviet Union on arms talks months and months before there was any response from the Soviet Union. It took a great deal of discussion in Moscow before they were ready to decide even in principle that they could enter arms talks; and I think this reflected not necessarily a fight by the military against starting in, but rather great hesitations on the part of everybody before launching into a new field, the end results of which could not be foreseen.

Chairman PROXMIER. I got the impression this morning and yesterday from our several witnesses—I got the impression that there is far less opportunity for unilateral action on the part of the party than you seem to imply. I got the impression from preceding witnesses that they have to be very much aware of the pressures of various groups who in a sense are under them. One is the military, one is the rising influence of the scientists, and so forth, to some extent the people and the workers.

From you I get the impression that because the party has a monopoly on the press and on the kind of information and on education, and so forth, that the party people, the very few people who are among these eleven who run, who seem to run the Government, that they have virtually absolute authority with very little restraint. But I did not get that impression from some of the experts who testified today. I wonder how you could reconcile this?

Mr. MARK. Well, I do not really think that we are far apart or perhaps not apart at all. It seems to me that the party is the final command authority in the country. Let me go back some years now. I think it was 12 years ago that Khrushchev started his scheme to decentralize the economy, to build up regional economic units, and to abolish most of the central industrial ministries in Moscow. This caused a tremendous upheaval. There was a great deal of dissatisfaction among the bureaucrats who were being sent out to provincial capitals, where life was not nearly as pleasant as in Moscow. Nevertheless they went.

Within that same time frame, Khrushchev had an idea to cut down the size of the armed forces some, and one found stories in the Soviet press about how a lieutenant was now finding life as a tractor driver on a collective farm eminently satisfactory; so that by implication, the message was that he did not miss his military life.

I am not saying that these sorts of decisions can be taken without tension and strain. Obviously the people affected are unhappy. But I am saying that, if it comes down to it, the party is the final authority. The question is whether the party wants to push things to that point,

and I think that here, I am entirely in agreement with the people who were testifying earlier.

The party naturally is not trying to build up confrontations in Soviet society. It is trying to make the machine work as harmoniously as possible, given the need to maintain political control and given the need to satisfy high priority items, such as a defense and other things.

Chairman PROXMIER. Does not that very process of making the country work harmoniously though exercise very real restraints? You know President Kennedy, when he was a Senator, said that he had a great feeling about the authority that the President has or could have if he wanted to exercise it, and then when he went up and became President of the United States, he said he had quite a different view of the Congress and of the great authority and power the Congress has.

I think in the same way that many of us think that the President can do anything. As a matter of fact, I get letters—and I am sure Congressman Conable does—from people who say “do this,” “do that,” “you can do it,” but we know we cannot do it, even if we had all the votes in the Congress, many of the things we are asked to do we cannot do.

In the same way I just wonder if there is that kind of power and authority and decisiveness which you imply, if there is not a great deal really of influence?

Mr. MARK. Well, I am sure that there is a lot of give and take. We have seen some of it in the operation of the current set of economic reforms, that have not really been implemented very successfully. There has been a great deal of resistance, naturally, to changing established ways of doing things. There are some people who have been in charge of various affairs and who show concern lest their authority might be diluted by decentralization.

But, at the same time, it seems to me that we must look at the situation of the people in other sectors of the Soviet Union, the collective farm managers, the directors of industrial enterprises, the heads of ministries or subcabinet members or chiefs of divisions within ministries. All of these people, almost all of whom incidentally are Communist Party members, are assigned to their jobs by the central party apparatus.

In essence, their careers, their future, their promotions are determined centrally. I understand, although I do not have the details on it, that there is a huge list of jobs throughout the country that can only be filled by approval from the party's central secretariat. Now people who know that there is this much pressure on them and on their careers are going to be reasonably aware about the extent to which they buck the central authority. I do not mean to imply again that the central authority is monolithic. Mr. Polyansky, for example, on the Politburo, is identified with agriculture, and from some speeches that he has made, it is apparent that he thinks that not enough money has been given to agriculture. Or perhaps, like the Finance Ministry's journal last March, he was referring to the chipping away of past allocations, because of new defense needs.

Naturally, collective farm managers, Agricultural Ministry people and what not are going to see in Mr. Polyansky their hero, and they will tend to hope—I am sure they will hope—that he will represent

their interests as the decisions are made at the top in the Politburo. It is this sort of interplay, I think, that does take place.

My only point was that ultimately, as Mr. Truman said, the buck stops here, and that place in the Soviet Union is the Politburo.

Chairman PROXMIRE. We heard testimony this morning that was very conflicting from one witness which coincided with your estimate, but it was only one. He estimated that the Soviet military budget was approximately \$60 billion. Three other witnesses challenged that—one of them Mr. Berliner—especially challenged it very strongly, and we never were satisfied, or at least I was not satisfied, with how this witness got from the \$20 billion or so which we acknowledged is clear that is spent by the U.S.S.R. for defense, and the \$60 billion.

Now it is true that there are some things we know are not included, but this is one fantastic leap. You seem to get there by saying that the \$60 billion constitutes 10 percent of the GNP which is in the neighborhood of \$400 or \$450 billion. The reason it is 60 instead of 45 is because that 10 percent is more efficient. That seems to be pretty hard to rationalize with the kind of economic statistics we have been working with on this committee, because a sector has more efficient operations we do not usually feel that therefore the proportion of GNP should be less.

Mr. MARK. At this point, of course, I wish that I had gotten a degree in economics instead of in law, but in any case, I think the answer is in the methodology by which you happen to derive some sort of comparative figure.

If you take the Soviet expenditures in rubles, then they are clearly something like 20 billion, and if you translate that into dollars at the official exchange rate, why you will come out with something like \$22 billion.

The figure that I was using, and perhaps your witness this morning, the figure of \$60 billion, is taken by analyzing what the Soviet economy, what the Soviet Government does in building up its military machine, what military goods and services it buys, and then by translating those things into dollars at the dollar costs we pay for similar items of our own.

For instance, we know that the Soviet soldier gets a very low rate of pay compared to the American GI, but in the cost calculations that go into the \$60 billion figure, that is, in translating what the Soviets do into dollar terms, we would calculate the Soviet soldiers' pay at American levels, because that is the comparable figure in the U.S. economy. At that rate, we build up to the \$60 billion result, making a whole series of guesses and estimates about what the value is in dollar terms of Soviet missiles or submarines or what have you that go into their armed forces.

Now when a sector of the economy is relatively efficient, its output costs the Soviets less, so to speak, in terms of factor inputs than it costs for some less efficient sector.

I mentioned before that agriculture makes up 25 percent of Soviet GNP. Now this is an agriculture that is by everyone's admission terribly backward, very inefficient in its use of manpower and resources, and yet it makes up 25 percent of GNP.

The answer is that the cost of the factors that go into it, the inefficient labor and so forth, do indeed take that much out of the Soviet economy, or, in other words, generate that much of Soviet GNP.

Chairman PROXMIRE. You see my trouble with that kind of analysis is if you increase all of the expenditures that the Soviet Union makes to adjust to our much higher pay and so forth, then wouldn't you have to do that with all of the Soviet Union's economy to make it comparable? Why isn't it a fair comparison to say that they spend about 10 or 11 or 12 percent of their GNP for defense and we spend about 9 percent, but we have an economy that is twice as big as theirs. Therefore it would seem to me to follow that we spend substantially more for defense than they do?

Mr. MARK. Well, as I said before——

Chairman PROXMIRE. And furthermore, we have 3½ million armed forces compared to their 3 million roughly.

Mr. MARK. We can, of course, calculate not only their defense expenditures but also their total GNP in dollar terms. I mean, one way for us to get our total for their GNP is to take all the Soviet production, in whatever field, and consumer goods, and to put it into an American equivalent price frame, to the extent that it is possible to do so. This gives us some idea of how total Soviet GNP, as well as Soviet defense expenditures, look in an American context of values and prices.

Needless to say, the Soviet economy does not operate on the basis of American values for consumer goods, producers goods, et cetera, but on the basis of Soviet prices and values that are quite different. To judge the share of Soviet GNP that goes into defense, we have to use their values, with some adjustments, not ours. Thus calculated, their defense outlays amount to about 10 percent of their GNP, but the trouble with this is, as I think I mentioned in the statement, that the statistic is in a sense misleading. It is correct I think in an economic sense, as a definition of the defense burden to the Soviet economy in its own price terms, but it is misleading, in that it does not take into account the drain on the Soviet economy which comes from using all of these top priority people, top resources and so forth in the defense sector, even if statistically, the percentage of GNP for defense is no higher than our own.

I mean these scarce high priority resources may be relatively cheap in Soviet pricing terms, in comparison with expensive resources in backward sectors of the economy, but they are still a tremendous drain on the system.

Chairman PROXMIRE. That is a good explanation. I see the point.

Mr. MARK. This is why the defense share GNP is not higher, even though defense is still a serious drain on the availability of modern resources.

Chairman PROXMIRE. Furthermore, it seems to me they limit what they can do in the future. If they are using such a very high proportion of their able technologically qualified people and their technology in the military, they would not have anything like the military potential that this country does, which is using a relatively modest proportion of its technological capability and of the capability of its people.

Mr. MARK. Well, I do not know whether that is——

Chairman PROXMIRE. Does not that follow?

Mr. MARK (continuing). Whether that in fact is the case.

Well, first of all let us take them. We have never seen that they

were unable to maintain the level of defense, defense investment, nuclear weapons development even in the late 1940's when they were just rehabilitating their economy after the devastation of World War II. We have never seen that they were unable to keep up the level of expenditure that they deemed necessary. Everybody else in the country suffered. But the fact is that the economy by now has grown much larger over the years. To increase defense spending somewhat nowadays is less of a strain on the whole economy proportionately than it was back in the 1940's or early middle-1950's.

Chairman PROXMIRE. But just look at what this country could do, what we could do. What sticks in my mind is the experience we had in World War II. We had a stagnant economy that had regressed from 1930 to 1940. Then President Roosevelt made his famous speech after Pearl Harbor in which he said we were going to produce tens of thousands of planes and tanks, and so forth. The trouble was everybody said the speech was an exaggeration, ridiculous, we cannot do it, and the trouble with the speech was that it was an understatement. We far exceeded that.

Mr. MARK. Right.

Chairman PROXMIRE. In other words, we have it seems to me an enormous amount of technological capability that we have not used. We have an agriculture which uses 3 or 4 percent of our GNP compared to their 24 percent, and we have efficiency all along the line. So it seems to me that we could greatly surpass them.

Mr. MARK. Well, I agree.

Chairman PROXMIRE. If we really mobilized and wanted to do it.

Mr. MARK. I agree, Senator Proxmire, we certainly could if we were willing to put the U.S. economy onto a war footing, but just think about the dislocations that were caused in World War II, the gasoline rationing, the movement of populations, the inductions of huge numbers of people into the Armed Forces, the pent-up consumer demand that built up during the war. Precisely for these reasons there would be tremendous resistance to mobilizing U.S. resources.

Chairman PROXMIRE. These are conveniences. What I am talking about is in terms of potential military power this country is a giant compared to the Soviet Union it would seem to me.

Mr. MARK. I know. If you are saying that, if the United States and the Soviet Union were engaged in a World War II-type of action, things would end up by having the United States vastly outproduce the Soviet Union in tanks, planes, and what not, and probably the ability to get them over to Europe and fight on that conventional battlefield, then I am sure it is true that we could. That is not really the problem that we have at the present time. The problem is to maintain—

Chairman PROXMIRE. Yes; but it is a very important part of the problem, because it seems to me that the Soviet Union must recognize under these circumstances that in an arms race while we would be terribly inconvenienced, as a matter of fact it would be a tragedy in this country, because of what it would do to our other very high priorities, we can win it. We can win it, and they must know that. They have a fairly unrealistic view perhaps about capitalism, but they know what this country has done and they probably have the same statistics you and I have.

Under these circumstances it seems to me that there is every reason to suspect that we should and would be able to move into an arms control situation with a real prospect for success, because they would have every reason to proceed in that kind of context, whereas if we continue with the race, they are going to be in a very disadvantageous position. We are too, but their position is going to be far more vulnerable.

Mr. MARK. I certainly said in my statement that I think that they have now decided for the first time that they would indeed like to see where talks about these very large expenditures; that is, talks about strategic arms limitation, may lead; and I think, if we get into those talks, we will find out precisely what the possibilities are for coming to some sort of an understanding. But at the same time I do not think that they necessarily conclude that we could outspend them and surely win in an arms race.

After all, they have an Embassy in this country. They can sense the mood of the people. They know that even the level of defense expenditures, including Vietnam, which are 10 percent or so of U.S. GNP, have produced a great deal of discussion, criticism and complaint in this country, that there are all sorts of competing demands for the U.S. GNP as well, and I am sure that they assess that in the absence of an actual war situation of the World War II-type, it would be extremely difficult to mobilize all these latent resources which, I agree with you, do exist in the American economy.

Chairman PROXMIRE. You see nothing would be more likely to mobilize those, especially that public support which I think we all realize is essential, like a threat from the Soviet Union, like a buildup on the part of the Soviet Union, like a mobilization on the part of the U.S.S.R., so that it would seem to me that the only way that they can proceed to achieve their housing objectives, their agricultural objectives, their investment objectives, and so forth, is to secure some kind of an arms reconciliation.

Let me ask you this: You have stated: "There is no doubt that unless we are prepared to put ourselves at the mercy of the Soviet leadership, we have no choice but to match Soviet power with adequate strength of our own."

I do not think anybody can dispute that. I think we would all agree that that is true, but the way you phrase it, it sounds like we are moving toward escalation, toward arms escalation, and because there is this hesitancy and lack of agreement on an arms discussion that was supposed to take place a year ago, it is hard for me to see that we are likely to do much except engage in this arms race that all of us want to avoid if we can.

Mr. MARK. We had indeed hoped, of course, that the arms talks would begin 2 years ago rather than 1, but in any case, I agree with you, Senator. The arms race is at the essential root of the problem. As long as you have no framework of understanding, which imposes constraints on both sides, then each will go on in a process of acting on its own and reacting to what the other person does. And this, more or less, gets built into a cycle.

I mean we have seen this take place and it is rather inevitable. Each country, or the leadership of each country is charged with maintaining

national security; and national security depends not only on the objective military needs of the country itself, as the leaders see it, but also on what the other man is doing.

And what is the other man doing? The tendency, of course, is to look at the evidence and to say: "Well, we had better not take chances. The other man is doing some things that we can reasonably interpret as building up a very substantial risk for us." If that is the only prudent way in which a government leader on one side can react when he sees what the other side is doing, then indeed the arms race will move along, and I think that this is what has been happening to both us and the Soviets.

Essentially we are locked into a cycle of action and reaction, and until there has been some move to cut it off by an understanding, however we arrive at it, I think that this is bound to go on, because these are the terms, this is the framework within which national security decisionmaking is now being made on both sides.

Chairman PROXMIRE. This is very gloomy to me, because while we have had some success, the nuclear test ban treaty was a success, the Nonproliferation Treaty we hope is going to be agreed upon and worked out, we have already ratified it or acted on it in the Senate at least, but I am wondering where we really can go in any kind of a comprehensive arms agreement.

Maybe we can agree on not testing MIRV's with the Soviet Union, maybe we can agree on not building ABM's, but unless we have a much more comprehensive agreement than this we are still going to have very, very serious arms escalation with an enormous burden and our resources shifted from the domestic area where they are so badly needed into arms development.

Is there any indication that we can have a more comprehensive agreement than the kind of spot agreement we have had in the past?

Mr. MARK. Well, I think that there is a fundamental difference in the nature of negotiation that we hope will get underway this summer from the types of agreements that we have reached in the past. The Nuclear Nonproliferation Treaty is not one—

Chairman PROXMIRE. This is very good to hear. I had not heard that before. You say it will be much more comprehensive?

Mr. MARK. I think that the possibility has certainly opened up, because after all the Nuclear Nonproliferation Treaty was essentially an agreement among the nuclear powers with the concurrence of those nonnuclear powers who signed the treaty that further countries will not develop nuclear weapons capabilities. The NPT does not act in itself to inhibit the buildup of the nuclear powers themselves, except for the famous article 6, which pledges them to continue their efforts to achieve arms control.

The test ban treaty, if it had been comprehensive, might have saved some small sums in the development of new weapons, although it would have done nothing to prevent the further stockpiling of existing weapons. As it is, a limited test ban treaty has not, of course, prohibited the testing of weapons underground. This has gone on and presumably new types of weapons have been developed.

Now for the first time, however, we are entering into a negotiation, assuming that we do, the stated purpose of which is to deal with some



of the costliest items of military hardware, missile systems certainly. How far the proposals will go I do not know. This is the point of all the studies that have gone on at the President's direction in the last few months, to find out exactly what types of weapons systems can be included in an agreement, what might be feasible to do, how you start off, and indeed what judgments the Soviet Union has made about these questions. But at least you are getting down to these matters.

I recall when I was at the disarmament conference in its early days in Geneva, and we were talking about general and complete disarmament, the topic which was introduced in 1959, we used to make references to missiles and whatnot, but everyone understood on both sides at the time that it was just for the record, that really there was no basis of approach to a limitation of that sort of armament in the context of the negotiations then going on.

Now I think that is different. That has changed, and this is what people are going to be trying to do.

Chairman PROXMIRE. Certainly there is a limit in what the Soviet Union can logically agree to in view of the Chinese threat, isn't there? After all, with the hostilities with China, actual shooting going on on the border, they obviously are going to be in a position where they are going to have difficulty limiting that segment of their defense. In fact, they may feel they have to build it up, but this does not constitute the kind of threat to us that nuclear buildup does.

Mr. MARK. Well, we do not know exactly how the Soviet Union will structure its defenses in regard to China. At the present time, since China is of course predominantly a conventional power, that is to say, its nuclear armaments are only in their infancy, the Soviet Union is undoubtedly building up the type of conventional forces that it feels will take care of any threat that might come from China.

But on the other hand, the Soviet Union might well also come to believe that it would pay to have some nuclear strength poised against China, particularly when China does not have a retaliatory capacity in that respect, and so Moscow might feel, as you have indicated, that indeed there are certain minimal levels beyond which it will not go in reducing missiles, just because of the Chinese threat.

How you can make sure at that point that an ICBM is really meant for Peking and not for Washington, I am not quite sure. There may be some ways, depending on where it is positioned, but these ICBM's do have rather long range.

Chairman PROXMIRE. Depending on the size, range, and so forth?

Mr. MARK. Yes.

Chairman PROXMIRE. It could be quite a difference.

Mr. MARK. But you know, 5,000 miles in either direction, so to speak.

Chairman PROXMIRE. Let me ask you this. We have heard much testimony that the Soviets can devote just about as much of its resources as it wishes to the military. I get the impression that you seem to feel that way. What if any are the practical limits to Soviet military spending? How much further can they go if they wish to do so?

Mr. MARK. Well, I do not know. Under wartime conditions they obviously can do a lot more, just as you indicated we could also do, than under present conditions.

Chairman PROXMIRE. I am talking about a cold war setting.

Mr. MARK. Yes.

Chairman PROXMIRE. Obviously any nation can do a great deal if it is going to move for an emergency that may last a very limited period of time, but on the expectation that the cold war may last several years they have a lot of constraints. They have a constraint that if they take too much out of consumption they destroy or weaken their initiative and morale. If they take too much out of investment obviously they are going to weaken their economic growth and their potential to supply their industry, so look at it from a little longer range view than what they can do right away with an immediate mobilization. What is your reaction to what they can do under those circumstances?

Mr. MARK. Well, I think that they would not like to devote any more resources to military expenditures.

Chairman PROXMIRE. Not that they would like to, what they can do say to have substantial and growing strength for a period of 10 or 15 years?

Mr. MARK. Well, I think they do not want to devote any more than they are devoting right now. I mean if they could reach some sort of understanding with us that allowed defense expenditures to stay at the present levels, or possibly even to go down a bit, I am sure they would be very pleased with this.

If on the other hand there were an arms race, that is, an escalating race, or if an effort to reach some sort of understanding had broken down, and each side went ahead with its plans, based on its judgments about what the other was doing, or what was necessary for national security, then I think the Soviet Union could, with some belt tightening, probably in consumer goods, make the necessary effort.

Accompanying this, of course, there would have to be some escalation of the polemical threat, that is to say, of the verbiage that is used to indoctrinate the Soviet citizenry. It might be that we or the Chinese, or both of us would be cast in the role of villain, in order to explain why indeed the new automobile factories, that are now being built for them, were not going to go into full production, or why some of the food supply increases that had been promised had not come through, or why any number of other things might not happen.

There might be some cutback let us say, in the space program, if that were one of the areas that they felt they could do it in, and there might be some others. It is pretty hard for me to guess where they might choose to make the cuts, because I do not have the feel, which their own leaders must have, for the intensity of the competition among different sectors in the Soviet economy, but I think that they could make it and they would make it.

Chairman PROXMIRE. I see. I am going to yield to Mr. Conable. I just wanted to point out that it does seem that on the basis of the testimony of other witnesses, that there is a very very real and definite limit and constraint on the Soviet Union in cutting back consumption expenditures, in fact feeling that they have to increase them if they are going to get better economic performance and if they are going to get a stronger military force, and that they would probably have to increase their investment very substantially because of the nature of

the kind of investment they have had, that now to get a greater output for their investment input they would have to devote a lot more to investment than they have in the past.

Mr. MARK. I agree.

Representative CONABLE. Following this line of questioning what types of domestic crises are likely to force a reassessment of Soviet military priorities and how likely are they to occur?

Mr. MARK. I cannot foresee any domestic crisis. I mean within the Soviet Union.

Representative CONABLE. Failure of a crop?

Mr. MARK. Well, I think even in this matter of crop failure—

Representative CONABLE. Possibly even domestic unrest?

Mr. MARK. I do not foresee any domestic unrest that would cause this amount of difficulty with their defense program. The domestic unrest in the Soviet Union is I would say rather isolated, small-scale, and intimidated; and although it is no doubt worrisome in terms of lack of conformity, since the leadership likes total conformity, it is not a serious threat to their position.

A crop failure is a more serious one. Indeed, they are concerned this year by the loss of a substantial portion I guess of their winter grain crop, and they are engaged in re-sowing some of those lands, in the hope that they can salvage some of the losses for later this year; and the Soviet press has been speaking about mobilization of resources to do just that salvage job in agriculture.

But even in past years, when they have had crop failures, they have been able to rely on grain stockpiles, which do exist in the country, and indeed on purchases of wheat abroad, and they have been willing when necessary to use their foreign exchange resources for that, and their gold supply.

Representative CONABLE. We have heard a lot in the press lately about the return to Stalinism, return toward Stalinism anyway. I recall the old comment that Khrushchev made about burying us. At the time he made it, it was quite clear that he was thinking in terms of competition but not necessarily military competition.

It has become quite obvious that in the nonmilitary competition the Russians have reason to lose some hope about burying us, since their growth rate is only slightly larger than ours, and they have a long ways to go before they are going to be able to overpower us by any form of economic warfare or any other nonmilitary type of warfare.

Is the return toward Stalinism then an inevitable result of disillusionment with the peaceful coexistence route of burying us?

Mr. MARK. No, I do not think so. First of all I think that the present leadership has very wisely given up the slogan of catching up with the United States—

Chairman PROXMIRE. Yes.

Mr. MARK. In meat, meat and egg production, or whatever it was, by 1970. Of course 1970 is almost upon us, but they were wise enough to do that in October 1964. I think also that there has not really been a return to Stalinism, at least not in terms of what Stalinism means to me.

To me it means one-man rule, total disdain for the safety, security and lives of tens of millions of people, total dominance over every

other sector of society, irrational acts that decimated military and political leaderships in the country—all these things, along with the night visits by the secret police on a huge scale, forced labor camps with 10 or 15 million occupants—that is what Stalinism is.

If you agree with that, then in effect you cannot say that Stalinism has returned to the Soviet Union. What we see rather is apparently an attempt by the leadership to tighten up the discipline of the society, to keep young people in line with the objectives of the regime, to prevent too much contact with the West, to insure a more rapid and orderly fulfillment of the priority objectives that the regime sets, to restore the morale perhaps of some of the repressive agencies, such as the secret police who were rather denigrated by Khrushchev during parts of his reign to give some feeling of continuity to Soviet history so that Stalin again has some sort of role in the history of the country and played an important part, rather than having him cast aside as an aberration in the course of Soviet history. All these things seem to be what is happening.

Now this does not necessarily have any connection with Soviet foreign policy. What they do on domestic grounds, in order to tighten up the discipline, does not necessarily lead them to take a tougher line toward the West. It does not lead them to denounce us as being any worse now than we were 5 years or 10 years ago; and even in the de-Stalinization period of the late 1950's and early 1960's, in Khrushchev's heyday, there were plenty of denunciations.

I certainly recall any number of articles, vituperative articles in the press, and I do not think that it is any worse at the present time, nor do I think that it has anything particularly to do with the idea of peaceful coexistence, which after all is a way of telling the world that they do not believe in nuclear war as a means of solving their problems with us, but are relying instead on mutual deterrence.

Representative CONABLE. Would you tell me what the current thinking in the intelligence community is about the goals of the Soviet space program? In the panic of the post-Sputnik period, everyone assumed that the Soviets were making a heavy commitment in space for military or paramilitary purposes. At least their emphasis seems to have shifted since that time to Interplanetary space exploration and such activities that cannot possibly have a military implication. Nevertheless, it is difficult to believe that they would expend such a tremendous amount of the national treasure in merely searching for prestige among the underdeveloped nations. So how do we analyze their space goals at this point?

Mr. MARK. Well, I do not think one should altogether discount the element of prestige. I think it is important for them, and particularly when they are not doing so well in computers or other fields of great attractiveness to other nations. It is nice to have one thing in which you can show some sort of preeminence. Even there, of course, things have not gone quite as well as they may have planned.

But I think that you also must not discount the military component of the Soviet space program. We have Cape Kennedy, which people can visit to watch launches, and there are probably conducted tours. There are not any casual visitors to Soviet space launches. They all take place at military research and development complexes. They use

military rockets adapted to some extent for space purposes. The cosmonauts are mostly military men. Of course our astronauts are as well, and you may say that is because they are all test pilots, and they adapt well to this sort of thing. But the Soviets have also spoken about manned space stations.

You will recall that our own, what was it called, Manned Orbiting Laboratory, the MOL project, which was to have been the Defense Department's side of the space effort, was being conducted by the Defense Department, and presumably in some way figured into military objectives. Well, unlike the Pentagon, the Soviets have never given up the idea of a large space station, and indeed are probably working rather actively toward it, and one, I would suspect, that will be considerably larger than what the MOL might have been.

Other people have spoken of the use of the moon for military objectives. I know that we have a treaty which outlaws the militarization, indeed even national appropriation of celestial bodies, and forbids the emplacement of weapons of mass destruction in outer space, but this does not mean necessarily that the treaty will always be adhered to by everyone.

Representative CONABLE. Thank you. I would also like to ask from an intelligence viewpoint what would be your analysis of the various motivations that would bring the Soviet to a disarmament talk of the sort that we have been discussing. I understand the economic pressures toward disarmament.

Is it possible, additionally, that they might feel that it would shift the balance of power toward them to have some sort of binding and effective agreement limiting what might be, in effect, our equalizers in terms of military power?

Certainly we are not in a position to match a country like Russia or China in conventional power. But what sort of a balance sheet do you make up with respect to potential disarmament talks? You must explore the various types of motivations that could bring the Russians to such a table for discussion.

Mr. MARK. Well, as both you and Senator Proxmire have stressed, I think the economic aspect, that is the idea of getting more breathing space in the economy, is a very important motivation. Perhaps it is the leading one.

They may also feel generally that some sort of stabilization of the international relationship with the United States or perhaps with the major countries of the Western World, that is with Western Europe as a whole, would serve their purposes at the present time.

I think that we are rather wary of saying that because the Chinese have opened up another front against the Soviet Union, the latter are now anxious to settle matters on what has previously been the most contentious front; namely, the European one. We are wary about saying this just because there is no sign of any diminution of Soviet interest in maintaining a strong military and political position in Europe.

On the other hand, it certainly is conceivable that they feel that there are now even more reasons for reaching with the West some sort of understanding about the status quo there. It is perhaps significant that they have come forward with a renewal of their proposals for

some sort of European security effort at the present time, leading up perhaps to a conference on European security.

They have even renewed a proposal—I think it was in the declaration by the 75 Communist Parties who met in Moscow last week—a proposal which again stresses, not stresses but mentions the possible abolition of both the Warsaw Pact and NATO. In other words, they might be anxious to consolidate some sort of relationship with us that provides a lesser degree of tension.

They might feel this useful also in other areas of the world. They are active in the Middle East and they seem to want to cut down the possibilities of a new conflagration there, and perhaps they felt that the instinct toward negotiation in the Mideast might be enhanced if they got somewhere in the nuclear arms talks as well.

There could even be some domestic political reasons involved in wanting perhaps to cut down some of the strains. They might feel that if the economy were resting somewhat more easily, perhaps some of the internal political pressures that have built up might also relax at the same time.

Representative CONABLE. You mentioned the studies that were underway at this point to prepare for these disarmament talks on our part, and I assume that these cannot be talked about in too explicit detail. Why haven't studies of these sorts been made before, or is it that they have to be made in relation to a rapidly changing factual situation?

Is it the factual situation that is being studied or just what? Why, for instance, when we all know that President Johnson was anxious to have arms talks last year that never came to fruition partly at least because of Czechoslovakia? Can't we just build on the studies that were made at that time, and why is it likely to take a great deal of time to bring them to maturity now when supposedly we have been thinking about this for some time?

Mr. MARK. Well, as you know, a new administration has come to power, and it naturally wishes to assess these very complicated things itself. It has changed a number of the senior personnel in the executive branch. These people have to become acquainted with the complexities of the situation. The new administration has also undertaken a review of the general force structure of the United States, that is what it thinks will be desirable in both general purpose fields, that is conventional fields, and in regard to strategic missile forces. Until you have some sort of judgment about the type of forces which you believe necessary for national defense, you are not really in a position to judge how you can safely chip away at it, or what constraints you can offer to put on it in the course of the missile limitation talks.

So I think it has been both an educational process and a reassessment of a fast-moving situation as you said, in an effort on the part of the new administration to line up positive policies.

Representative CONABLE. That is all, Mr. Chairman.

Chairman PROXMIRE. I understand, Mr. Mark, that the Soviet Union now has an institution for studying the United States. We heard this just the other day from one of our witnesses.

Mr. MARK. There are two of them.

Chairman PROXMIRE. Why don't you tell us about the two, then?

Mr. MARK. I am afraid I do not know much about them. One of them is the Institute—I think—for the Study—

Chairman PROXMIRE. If you do not know we don't, because you are the intelligence man in the State Department.

Mr. MARK. These are not a matter of intelligence. As a matter of fact, two gentlemen from those institutes, I understand, were visiting Washington a couple of months ago and got around town much more than I ever do.

Chairman PROXMIRE. Professor Fainsod said they even went to Harvard, in fact even went west of the Mississippi.

Mr. MARK. That is right. There is the Institute for the Study of World Economics, which was established some time in the late 1940's I think, and which undertook, among other things, studies of Western economies, and particularly of the United States; and from economics they got into political questions.

Now, more specifically, an Institute for American Studies has been established, so that in a sense you have competing judgments possible. In comparable American terms, it is sort of RAND Corp. versus an Institute of Defense Analysis.

Chairman PROXMIRE. Isn't this a very promising development? It seems to me one of the great difficulties between our country and their country is we do not understand them as well as we should and they certainly do not understand us. Certainly if they could fully understand our intentions I think that the notion that we were moving for example toward a first-strike capability would be disabused in a hurry, if they really understood the way this Nation operates, and the way our Congress and Presidents come to office and so forth. So I would think that anything we can do to encourage this, to encourage their study of the United States, any cooperation would be constructive. What are we doing to foster the interchange of ideas?

Mr. MARK. I agree with you completely, of course, but this is not in the intelligence side of the State Department, since it is again a matter of American policy. But, of course, we have had an exchange program going with the Soviet Union for over a decade now, and we negotiate, so to speak, the components of the exchange program on a biennial basis—the questions of which types of delegations will go back and forth, how many students there will be, what types of students, how many doctors go, what exhibits there will be, and so forth.

Chairman PROXMIRE. Is there a push to step this up and to increase it?

Mr. MARK. We have always wanted just the type of exchange that you mentioned. We have always wanted to have their people come over here, that is responsible people, and get to know American counterparts. We have been a little bit unhappy, I guess, over the years, because the reciprocity has been less than complete. One does not go to Moscow and just bounce in to see people the way one does in Washington. It is much harder to get into buildings, to find out who is where, indeed even to know who does what. So that our visitors to the Soviet Union, although there have been a number of them—and I am sure Professor Fainsod and some of the others themselves fit into that visitor category—generally are not able to do all they would like by any means. Sometimes they are forced to rely on Pugwash conferences and meetings of that sort which usually take place in third countries.

But we are in favor of it. We do like studies. We hope the studies

are objective. They tend to think that the studies which American economists and analysts make are rather prejudiced, and that Americans cannot be objective, in quotes, about socialist developments, because after all we are not Socialists.

However, we also think that they are not likely to be that objective about us either. There is a problem of communications here perhaps.

Chairman PROXMIRE. Two quick questions.

One: Does Russia have a problem with their military-industrial complex, that is keeping it from pushing too hard against extravagant weapons that are not needed, from wasting funds because of the deep concern, the understandable concern with military security? Do they have the same kind of problem that we have?

Mr. MARK. Well, without judging to what extent that is a problem for us, I think that the Soviet Union clearly has some difficulties making its decisions about which weapons systems to build and so forth.

I do not think, however, that the factory managers are particularly influential pleaders in this regard. I think perhaps the scientists and the military who have been associated with the scientists in the R. & D. work are the ones who feel most strongly that this or that weapons system should be adopted.

As I indicated in my statement, there was a speech by Khrushchev in which he adverted to the wastes in the Soviet defense industry process, which of course were secret because the whole industry is kept secret; and I am sure that these wastes must be very large indeed. But we have no way of knowing just how large that "large" is.

Chairman PROXMIRE. We were regaled a week or so ago by former Secretary of State Acheson, and one of the many observations which he made is, "Never forget," he said, "that the Soviet leaders and the people in the Soviet Union, whatever their quarrels with China may be or with some other country, recognize that the United States is the enemy."

He seemed to feel that this was something that was permanent and not subject to modification or even to significant improvement. What is your view and what is the view of the State Department?

Mr. MARK. Well, I do not know what the view of the State Department is. Perhaps the Department is able to avoid long-range judgments of this type by just proceeding with its diplomatic business from month to month or year to year; that is, by entering into disarmament talks if they can, and by doing other things, discussions on the Middle East and so forth on a rather pragmatic basis, without deciding or having to decide right now whether the worst or the best is going to happen in the long run as the situation evolves.

My own thought would be that it is probably a bit too pessimistic to take Secretary Acheson's view. As a matter of fact, I personally would not want to take it. But it is not really a practical question in terms of immediate policy formulation and diplomatic action.

Whether the Soviets think of us as a permanent enemy or not, the fact of the matter is that they are willing to do business with us on a wide variety of issues which are of concern to them and to us. Whether it is keeping down the war in the Middle East, or whether it is disarmament talks, or whether it is reaching a *modus vivendi* in Europe,



whatever it may be, there are practical questions on which they are willing to deal with us. My personal hope would be that, if we are successful in getting somewhere on these issues, this will open up new avenues for cooperation that now seem closed, that enough confidence may be built up in the process to enable us to think about some sort of common action in other areas, where objectively speaking we do have interests that more or less coincide.

It will be at best a very slow process of gradually building on whatever we may have accomplished in the past, but there is the experience, for example, that we have already had in connection with disarmament talks. The 18-nation meeting in Geneva has been going on since March 1962, and we have even had a few agreements from it. Many of the people who have been involved in this work on the Soviet and American sides have not been reassigned very rapidly to other jobs, and many of the Americans now have developed a little rapport with Soviet counterparts, and vice versa. They can go to dinner together or lunch together and talk things over in relatively objective nonpolemical terms—talk about the prospects of getting somewhere this way or that way; each can give and get hints about what may be a fruitful path to proceed on rather than some other way which might reach a dead end, because each can assess the leadership balance or the balance of influential opinion back in his own capital city.

If more of this develops, if there are gradual accretions to the area of cooperation, even if only among bureaucrats to start with, but also in due course with visiting scientists and scholars on each side, then, over the years, and I would say maybe over the decades, it may be possible to reach a relationship that is a lot more hopeful and fruitful than Secretary Acheson indicated.

Chairman PROXMIRE. Thank you very much, Mr. Mark. It is good to end this hearing today on this hopeful note. You have been most articulate, intelligent, responsive, and we deeply appreciate your excellent testimony.

Mr. MARK. Thank you. It has been a pleasure.

Without objection, I offer for the record a statement by Dr. Abraham S. Becker of the Rand Corp. requested by the committee staff for submission to the record of these hearings. Dr. Becker is the author of the just-published authoritative book on *Soviet National Income, 1958-64*.

**STATEMENT SUBMITTED BY ABRAHAM S. BECKER, THE RAND  
CORP., SANTA MONICA, CALIF.**

**SOVIET GROWTH, RESOURCE ALLOCATION, AND MILITARY OUTLAYS**

Announcing forthcoming hearings on "The Economic Basis of the Russian Military Challenge to the United States," Senator Proxmire declared that "there is a real need to assess the economic capabilities of the Soviet Union to accomplish its varied objectives." I would like to respond to the subcommittee's invitation to contribute to that assessment, especially with reference to the specific subject of the hearings, by presenting some reflections on three separate but related themes: (1) the rate of growth of the Soviet economy; (2) the pat-

tern of resource allocation; (3) comparisons of U.S. and U.S.S.R. military expenditures.

#### GROWTH OF SOVIET OUTPUT<sup>1</sup>

The outstanding quantitative generalization that we can make about Soviet economic development over the long term is that the peacetime rate of growth of aggregate output has been notably rapid. Few Western scholars will disagree with that finding, although the difficulties of estimating Soviet growth inevitably lead to some dispersion in the results of the various calculations. In the post-World War II period a particularly high growth tempo was achieved in the 1950s—on the order of 7–8 percent per year, or roughly twice as large as the rate of change of our national output. Beginning in the late 1950s and highlighted by the crop failures in 1963, a deceleration in Soviet growth became apparent. In the six-year period ending with Khrushchev's dismissal from the leadership, aggregate output rose to an annual rate of 5–6 percent. Thus, there had taken place a decline in the rate of expansion of about one-fifth to one-fourth.

Not enough work has been done on the period since 1964 to present as unequivocal a judgment on the relative accomplishments of the successor regime under Brezhnev and Kosygin, but it appears that the recent record bears a closer resemblance to the late Khrushchev years than to the 1950's. Official statistics claim a 7–8 percent growth rate between 1964 and 1968, depending on the aggregate measured. Independent Western calculations would suggest a figure closer to 6 or 6½. Nevertheless, two observations are worth making. First, the deceleration observed for the Seven Year Plan period does not appear to have sharpened under the post-Khrushchev regime. Second, the rate of growth attained, although lower than that achieved in some earlier periods of Soviet economic history and lower than what the present regime would like to be able to achieve, is substantial by international standards. Over a meaningful interval, the Soviet Union appears to be able to add to its national output at a tangibly more rapid pace than we can manage to accomplish.

It is important to set out these conclusions explicitly if only to remind ourselves that the real and difficult problems of economic organization and planning that the U.S.S.R. has experienced have not prevented it from continuing to expand its production potential at respectable rates. Possibly, failure to solve these much discussed problems will have a further depressing effect on the tempo of growth, but it is difficult to see much evidence to support a prediction of drastic deterioration in short run growth prospects. It should also be said

<sup>1</sup> This section draws on official Soviet sources and the following American studies: Abram Bergson, *The Real National Income of Soviet Russia Since 1923*, Cambridge, Mass., 1961. Stanley H. Cohn: in U.S. Congress, Joint Economic Committee, *Dimensions of Soviet Economic Power*, 1962; and in the JEC's *Soviet Economic Performance, 1966–67*, 1968; Richard H. Moorsteen and Raymond P. Powell, *The Soviet Capital Stock, 1928–62*, Homewood, Ill., Abraham S. Becker, R. H. Moorsteen and R. P. Powell, *The Soviet Capital Stock: Revisions and Extensions, 1961–67*, New Haven, Conn., 1968. A. S. Becker, *Soviet National Income, 1958–64: National Accounts of the U.S.S.R. During the 7-Year Plan Period*, Berkeley and Los Angeles, 1969.

NOTE.—Any views expressed in this statement are those of the author. They should not be interpreted as reflecting the views of the Rand Corp. or the official opinion or policy of any of its governmental or private research sponsors.

that neither is there much evidence in the other direction, towards a marked acceleration of aggregate growth.

### *Soviet Resource Allocation*

The tabulation below shows the structure of Soviet GNP by final use, valued at factor cost of the given year, for selected years in the period since 1950 (in percent) :

	1950	1952	1955	1958	1960	1962	1964	1967
Consumption.....	156.3	154.5	159.2	57.3	56.1	57.2	56.2	56
Defense.....	10.9	12.7	10.3	6.9	5.8	7.0	6.5	1
Government administration and internal security.	4.8	4.2	2.6	2.0	1.6	1.5	1.3	2
R & D.....	(?)	(?)	(?)	1.6	1.5	1.9	2.1	2
Gross investment in fixed capital and inventories.....	27.9	28.7	27.9	32.0	31.0	30.8	33.2	33
Other outlays and statistical discrepancy.....				.2	3.8	1.6	.7	2
GNP.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100

<sup>1</sup> Including public sector expenditures on R. & D.

<sup>2</sup> Included with consumption.

Sources: Bergson, "The Real National Income of Soviet Russia Since 1928," p. 245; Becker, "Soviet National Income 1958-64," p. 96; my unpublished estimates based on official Soviet sources.

Before commenting on the patterns revealed in this tabulation, it is necessary to explain briefly the scope and meaning of the data shown.

1. "Consumption" is the sum of household outlays (in retail sales markets, on consumer services, and the imputed values of income consumed in kind) and public sector expenditures on education, health care and physical culture, and the like. The figures for 1950-1955 inextricably include public sector outlays on R&D which are clearly not consumption expenditures, but the absolute and relative outlays at that time were small, accounting for less than one percent of total uses. "Defense" refers only to the announced Soviet state budget allocation so labeled. The estimates for "internal security" are guesses intended to allow for the expenditures of the Ministry of Internal Affairs and the Committee on State Security (under various changes of name and administrative scope). "Other outlays" encompass various quasi-investment activities, some minor civilian operating outlays, and concealed military expenditures, but also a statistical discrepancy. Computed as a residual, "other outlays" are subject to possibly considerable and probably varying margins of error.

2. So long as the student of Soviet macroeconomics is content to confine his analysis to financial flows, he may successfully operate in the medium of prevailing prices. But in deciding to probe issues of growth and resource allocation he must confront the problem of the compatibility of the raw data at his disposal with the accepted conceptual framework of such analysis. It is well known that in terms of the requirements of the standard concepts of national income measurement, Soviet prices are seriously flawed. In partial compensation for the distortions of the Soviet price system, several major adjustments to values at established prices have been undertaken by the western students whose work has been summarized here. Thus, the finished data under consideration are based on values at factor cost rather than established or prevailing prices. Additional adjustments could be attempted, aimed at the correction of other deficiencies of Soviet prices. But while these refinements would change the numbers in the

above tabulation, they would not affect the time patterns materially. Neither, incidentally, would they affect the conclusions drawn earlier on changes in the rate of aggregate economic growth.

To come now to the tabulation itself, the data may be summarized as follows:

1. Since 1950 between 55 and 60 percent of total Soviet output has been allocated to consumption, defined to include expenditures by the government and economic organizations on education, health care and other communal services. Household consumption outlays alone rose from a level of about 45 percent of GNP at the start of the period to a peak of 51 percent in 1954. Since then household outlays appear to have maintained a relatively steady claim of about half of total output. Contrasted with this rough stability is the sharp decline in the relative outlays on defense, at least as officially announced, and on administration and internal security. Gross investment in fixed capital as a share of GNP rose slowly but steadily from a level of 22 percent in 1950 and 1952 to a peak in 1961 of 29 percent, leveling off thereafter at about 27 or 28 percent of total use. The share of all gross investment fluctuates considerably because of the instability of inventory investment but in recent years appears to represent a call on GNP of roughly one-third.

2. The pattern of Soviet resource allocation differs markedly from that of some of the leading noncommunist countries (e.g., the United States, Canada, Japan, and Western Europe). Apart from Japan, the leading noncommunist countries devote a larger—often substantially larger—proportion of their annual product to consumption than does the U.S.S.R. On the other hand, only West Germany and Japan appear to be in a class with the U.S.S.R. with respect to rates of gross investment, including investment in inventories. High Japanese and German investment rates are the obverse of low consumption and defense shares in GNP, a pattern only somewhat less apparent in regard of Western Europe generally.

3. According to the tabulation, the peak level of relative expenditure on defense in the U.S.S.R. was about 13 percent in the Korean War year of 1952. Since then the share has been reduced by half. Does the Soviet Union then require only six percent<sup>2</sup> of its total output for the military, compared to our 8–10 percent? There is little doubt that Soviet military outlays are not coextensive with the announced budget allocation to “defense.” The latter exclude outlays on the militarized component of the internal security apparatus and the great bulk of investment in arms production. Expenditures of a military character can also be traced to those on R&D as well as possibly to the catchall “other outlays.”

Unfortunately, the closest scrutiny of the published literature yields only these imprecise indications and they cannot be easily quantified. Revalued at factor cost, the announced allocation to “defense” absorbed between 6 and 7 percent of GNP as I have estimated it for the period 1958–1964. Crude estimates for the succeeding three years do not indicate any change in that level. Addition of outlays on the militarized internal security forces and the appropriate military-space

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<sup>2</sup> Since explicit defense expenditures increased more than 15 percent in 1968, whereas the Soviet Union claims growth of aggregate output by only 7.2 percent, it is clear that the defense share of the total increased last year but possibly by no more than a percentage point.

component of R&D expenditures would raise the military's share of GNP by one or two percentage points. Further incorporation of expenditures concealed in "other outlays"—indeed, allowance for possible underestimation of those residual expenditures—could not raise the relative weight of military outlays to a level much above one-tenth of total output. In the present state of our information from published sources, it seems perilous to venture beyond these sketchy and tentative conclusions.

#### COMPARISONS OF U.S. AND U.S.S.R. MILITARY EXPENDITURES

But how do these conclusions on the relative weight of Soviet military outlays square with the oft-repeated statement that "with an economy half the size of our own, the U.S.S.R. spends as much on defense as we do"? The corollary of that claim—namely, that the burden of defense is twice as large there as here—is also frequently cited. The answer is that the comparisons of aggregate output on the one hand and of military outlays on the other derive from totally different and mutually incompatible kinds of calculations. In consequence, the corollary with respect to the burden of defense is simply wrong. The three elements are taken up in order:

##### *1. U.S.S.R. military expenditures are equivalent to those of the United States*

As I have already indicated, it is extremely difficult to estimate the ruble value of total Soviet military outlays, concealed as well as explicit, from open sources. The announced 1968 expenditure came to 16.7 billion rubles. Making crude allowance for the missing components might raise the total to between 20 and 25 billions. This equivalent, at the official rate of exchange of 1 ruble=\$1.10, to \$22–\$28 billion, far below U.S. spending, even with Vietnam expenditures excluded. Equality of Soviet and American military outlay levels can be obtained only if we assume that the military ruble buys far more than \$1.10, perhaps as much as \$3 or \$4. Is that possible?

It is clear that the system of Soviet official rates of exchange with foreign currencies is essentially arbitrary, in the sense that the exchange rate does not organically link the price level of the domestic economy with prices on the world market. Since the state exercises a monopoly on foreign trade transactions and forbids trade in its currency, it is within its powers to set any exchange rate with the dollar it deems suitable. Although it is not possible on the basis of the open literature to establish the purchasing power of the military ruble with precision, an average value considerably higher than the official rate seems very likely. Evidently, the ratio of direct manpower costs is heavily in the U.S.S.R.'s favor, but even with respect to military hardware the dollar-ruble ratio may be in excess of 2:1.<sup>3</sup>

<sup>3</sup> In a RAND study published in 1959 (*Prices of Producers' Durables in the U.S.S.R. and the U.S. in 1955*) I estimated the dollar-ruble ratio for civilian producers' durables in 1955 as 2–2.5:1 (in terms of "new", post-1960 rubles). U.S. prices of these goods have increased by about one-quarter since then. According to official claim, wholesale prices of all Soviet metalworking and machinery, civilian and military, declined 20 percent between 1955 and 1967. Thus, extension of the 1955 ratio by the indicated changes in numerator and denominator yields a 1967 or 1968 value of the ruble of \$3.13–3.91. However, there is reason to question the reliability of the claimed decline in Soviet durable prices, and to believe that prices of many types of machinery in fact increased over the period. The inferential leap from producers durables to military hardware is sizeable and I have said nothing about the course of prices in U.S. military industry, but I believe the conclusion stated in the text is reasonable.

2. *The Soviet economy is half as large as ours*

In comparing the aggregate output of two countries, it is obviously necessary to render the output baskets commensurable. The commonly accepted method is to revalue the output of the first country in the prices of the second or vice versa. It must be emphasized that both calculations have equal legitimacy. Thus, we may compute the ratio of Soviet to American GNP (or other output measure) in terms of either rubles or dollars. Unfortunately, the alternative calculations yield different results. They do so with respect to any pair of countries, but the greater difference between the two in real resource costs and in relative preferences among goods and services, the wider is the gap between the results of the alternative calculations likely to be. For earlier years, the estimated ratio of Soviet to U.S. output was roughly twice as large in dollars as the companion ratio in ruble prices.<sup>4</sup> It has been the practice in the government to take an average of these two ratios, and it is such an average that is reflected in the general notion that "the Soviet economy is half as large as ours".

Let us note here a fundamental point: The statement that the Soviet Union spends as much for military purposes as we do is one comparing levels of expenditures of both countries in terms of dollar prices; the statement that Soviet GNP is half as large as that of the United States is an average of ruble and dollar comparisons—that is, a hybrid valuation. The two statements cannot be legitimately juxtaposed.

3. *Defense takes twice as large a proportion of Soviet than of U.S. GNP*

Nevertheless, the juxtaposition is frequently made and the inference drawn as indicated above. The conclusion is erroneous in two senses: (a) GNP and defense must be measured in the same set of prices. If all uses of output in both countries are valued in rubles and dollars, the respective averages taken, and the structure of resource use in each country then computed, arithmetically impossible results obtain.<sup>5</sup> (b) The "burden of defense" can be properly measured only in terms of one's own costs and preferences, not the other fellow's. The absurdity of the contrary can be illustrated by noting that in ruble prices the U.S. can be shown to have devoted only 4 percent of its 1955 GNP to defense against 10 percent when U.S. output is valued in dollars of the same year.

To summarize: In dollar terms the U.S.S.R. may spend as much or nearly as much as we do on military preparedness. At the same valuation, Soviet total output will appear to constitute a considerably greater fraction of our own than the one-half of common parlance. Both the United States and the U.S.S.R. probably devote roughly the same proportion of their aggregate output to defense, when each country's output is measured in its own prices. The links between these statements are varying purchasing power parities of the respective currencies in terms of the other, with respect to different sectors of the economy.

<sup>4</sup>Morris Bornstein, "A Comparison of Soviet and United States National Product", *Comparisons of the United States and Soviet Economies*, Joint Economic Committee, U.S. Congress, 1959; Abraham S. Becker, "Comparisons of U.S. and U.S.S.R. National Output: Some Rules of the Game", *World Politics*, October 1960.

<sup>5</sup>Becker, "Comparisons of U.S. and U.S.S.R. National Output . . .", p. 107.

## CONCLUSION

Failing significant changes in internal organization, it seems unlikely that the Soviet Union will succeed in raising its rate of overall economic growth tangibly above the level marked out in recent years. Presumably, we should not rule out the possibility of a further decline, as compared with the record of the 1950's, if the attempts to make do with patchwork repairs to the economic mechanism prove unsuccessful. But the U.S.S.R. is a country rich in resources, physical and human, and muddling through may still carry it a long way.

The problem of Soviet growth is, of course, complicated by the fact that the economy is apparently close to a ceiling on the rate of investment, the proportion of output devoted to investment, attainable under present arrangements. Relative stability also characterizes the shares of other major claimants, consumption and defense, although their relative weights in the total may vary somewhat in one or another year. Generally, however, it is difficult to foresee drastic changes in the near term in Soviet resource allocation. This does not mean that the Soviet Union will not be able to maintain a strong and growing military machine. It does so now, and given growth increments at least as large as those obtained in recent years, it should be able to continue to build up its forces to help meet its national objectives.

Chairman PROXMIER. The subcommittee will adjourn subject to call of the Chair.

(Whereupon, at 4:05 p.m., the subcommittee adjourned, to reconvene subject to the call of the Chair.)

