877

95th Congress
2d Session

JOINT COMMITTEE PRINT

WESTERN PERCEPTIONS OF SOVIET ECONOMIC TRENDS

A STAFF STUDY

PREPARED FOR THE USE OF THE

SUBCOMMITTEE ON PRIORITIES AND ECONOMY IN GOVERNMENT

OF THE

JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES

MARCH 6, 1978

Printed for the use of the Joint Economic Committee

U.S. GOVERNMENT PRINTING OFFICE
23-390 WASHINGTON : 1978

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

LETTERS OF TRANSMITTAL

MARCH 2, 1978.

To the Members of the Joint Economic Committee:

This staff study, entitled "Western Perceptions of Soviet Economic Trends," was prepared for the Joint Economic Committee and is for the use o. the members and other Members of Congress. The study compares the way future Soviet economic trensd are viewed in the U.S. intelligence community and selected West European countries.

Sincerely,

RICHARD BOLLING,
Chairman, Joint Economic Committee.

FEBRUARY 27, 1978.

Hon. RICHARD BOLLING,
Chairman, Joint Economic Committee,
U.S. Congress,
Washington, D.C.

DEAR MR. CHAIRMAN: I am transmitting a study entitled "Western Perceptions of Soviet Economic Trends," prepared by Richard F. Kaufman of the Joint Economic Committee staff.

The study compares the way the U.S. intelligence community and officials and private experts in selected West European countries perceive future Soviet economic trends. Mr. Kaufman identifies a wide disparity of views about the same economic trends between U.S. and West European experts and correlates them to differences and the lack of coordination in government policies concerning trade with the Soviet Union and military support of NATO.

The views expressed in the study are those of the author and not necessarily those of the members of the Joint Economic Committee.

Sincerely,

WILLIAM PROXMIRE,
Chairman, Subcommittee on Priorities and Economy in Government.

CONTENTS

WESTERN PERCEPTIONS OF SOVIET ECONOMIC TRENDS

By **Richard F. Kaufman** [1]

1. INTRODUCTION

The way Soviet economic trends appear to us influences many U.S. policies and programs. This applies particularly to allocations of resources for defense. Unfortunately, Soviet secrecy and incomplete statistics make it difficult if not impossible to know all the facts.[2] U.S. policymakers have come to rely heavily on the intelligence community for information about the Soviet economy.

This staff study sets forth the result of a study that was made to understand how West Europeans view the Soviet economy and whether, or in what way their views differ from those of the U.S. intelligence community.

The study was based on a series of in-depth interviews of government officials and private experts in August, 1977, in four countries—France, the United Kingdom, West Germany, Sweden and NATO and SHAPE headquarters in Belgium. A number of documents prepared in various foreign ministries and in NATO were examined. Interviews were conducted at economic, foreign and defense ministries in the countries visited, NATO headquarters in Brussels, SHAPE headquarters in Le Mans, and a number of public and private research institutes and universities, including the Sorbonne, Oxford, the University of Glasgow, the University of Edinburgh, the Royal Institute for International Affairs (Chatham House), the London Institute for International Studies, the Burdesinstitut Fuer Ostwissensschaftlich Und International Studien, the East Economic Bureau (Stockholm), and the Stockholm International Peace Research Institute. Also consulted were private industry officials who had knowledge of the Soviet economy. Additional interviews took place in Washington, D.C., in September, October, and November 1977 and January and February 1978 with foreign and U.S. officials.

[1] The author is grateful to John P. Hardt, Catharine H. Kaufman, and William W. Whitson for many helpful comments on earlier drafts of this staff study and to Eileen Murray for administrative assistance.

[2] The text of the Soviet secrecy law may be found in the Joint Economic Committee Hearings. *Allocations of Resources in the Soviet Union and China—1977*, p. 159. In addition to listing military information as state secrets, the law also lists economic information including production capacities and reserves for nonferrous metals and radioactive materials, discoveries and inventions of military, scientific or economic significance, the condition of currency stocks and balance of payments information.

2. BACKGROUND: RECENT SOVIET ECONOMIC TRENDS

Soviet economic growth rates reached a high point in the 1950's. They averaged about 6 percent then but have been declining gradually since that period. For 1961-70 the growth rate was 5.1 percent, and 3.8 percent for 1971–75.[1] This slowdown is well known to experts and has been the subject of much speculation as to causation, and whether or not it will continue. Still, the present growth rates are quite respectable by Western standards.

Among factors cited for the growth slowdown—and for its likely continuance—are labor force shortages, chronic agricultural problems, and difficulties in the energy sector. Labor force shortages are due to decline in population growth—a result of World War II—and declining fertility rates caused by urbanization, demands on women for more education, and the availability of birth control measures. The most serious effects on the economy are likely to occur in the 1980's when additions to the population of potential workers will drop drastically.[2]

Soviet agriculture suffered major reverses in 1972 and 1975 due to bad weather. The economic effects during each year were immediate. GNP growth slowed to 1.7 percent in 1972 and 2.2 percent in 1975. Because the Soviets are so vulnerable to the effects of adverse climatic changes on farm production, this sector of the economy is bound to fluctuate.

The energy sector is one of Moscow's proudest post-World War II achievements. Starting from a very low base, the U.S.S.R. has become the only industrial nation self-sufficient in energy. It is also a net exporter of oil and gas. But they are having trouble finding and exploiting new fields, as well as managing existing fields. It is questionable if they can increase future production adequately enough to meet their own requirements, those of their East European allies, and to continue exporting to the West. A downturn in oil production would add to the economic slowdown and impair the Soviets' principal source of hard currency earnings.

Until recently, official U.S. intelligence estimates depicted Soviet defense efforts as being similar to those of the U.S. in terms of resource allocations. Soviet military expenditures were estimated to be 20 percent greater in dollars than U.S. expenditures in 1974. Outlays in rubles were estimated at 25 billion for 1973. The Soviet defense "burden" (the portion of GNP spent for defense) was believed to be roughly equivalent to the U.S. defense burden and as recently as 1974 intelligence experts thought it was shrinking.[3] Intelligence also showed a Soviet defense industry vastly more efficient than its civilian counterpart. This efficiency, it was claimed, partially explained how Soviet defense could cost only one-fifth more than U.S. defense, and represent about the same share of GNP, though total Soviet GNP was half the size of U.S. GNP.[4]

---

[1] The gross national product (GNP) grew by 3.7 percent in 1976 and 3.5 percent in 1977.

[2] Estimated annual increments to the population in the able-bodied ages are 551,000 in 1981-90 compared to 2,313,000 in 1971-80. Murray Feshbach and Stephen Rapawy, *Soviet Population and Manpower Trends and Policies*, in *Soviet Economy in a New Perspective*, Joint Economic Committee (1976) p. 129.

[3] Hearings, *Allocation of Resources in the Soviet Union and China—1974*, Joint Economic Committee, pp. 22, 27.

[4] The Director of the Office Net Assessment, Department of Defense, in a 1975 study prepared for the Joint Economic Committee, argued that the U.S. intelligence community was overestimating the efficiency of Soviet military production relative to Soviet civilian production and the United States. Hearings, *Allocation of Resources in the Soviet Union and China—1975*, pp. 162-164.

3. U.S. INTELLIGENCE PERCEPTIONS

During the past 2 years the U.S. intelligence community has significantly altered its estimates of Soviet economic trends including estimates of military spending.

In the spring and summer of 1977 the Central Intelligence Agency (CIA) issued a series of reports that represent major modifications of earlier assessments of future Soviet economic trends. The Agency predicts, in its report, *Prospects for Soviet Oil Production,* and in testimony before the Subcommittee on Priorities and Economy in Government that Soviet oil production will start to fall by the late 1970's or early 1980's, and that this drop will slow the growth of total energy production. "More pessimistically," the CIA states, "the U.S.S.R. will itself become an oil importer." The CIA also states that in the next decade the U.S.S.R. may be unable to supply oil to Eastern Europe and the West on the present scale and may have to compete for OPEC oil for its own use.[1]

In a broader assessment, *Soviet Economic Problems and Prospects,* the CIA concludes that Soviet GNP growth is likely to decline by the early and mid-1980's to between 3 and 3.5 percent annually, and could drop as low as 2 percent in that period. This outlook, substantially more pessimistic than earlier ones, is based on predictions of worsening problems in the energy sector, a slowdown of labor force growth, a slowdown in the growth of capital and labor productivity, an inefficient and undependable agriculture sector, a probable return to less-favorable weather for crops, and a possible shortage of steel. The Defense Intelligence Agency (DIA) disagrees with the prediction of a decline in Soviet oil production, but agrees that the Soviet economic growth rate is slowing and could go as low as 2 percent in the 1980's.[2]

The CIA study contains three sets of projections for GNP growth, each dependent upon different assumptions. One projection, called the *Base-Line Case,* assumes the Soviets will prevent fuel and material shortages from interfering with production and that present investment policies and the trend toward a decline in the labor force will continue. The rates of growth for this case are projected at 3.75 to 4.25 percent for 1977–80 and 3 to 3.5 percent for 1981–85. A more optimistic outlook, called the *Best Case,* assumes energy will not be a constraint, that investment will increase by shifting funds away from military procurement and construction and from consumer durable production, and that civilian manpower will rise through reductions of the armed forces and the inducing of teenagers and elderly persons into the work force. The forecast for GNP growth under these assumptions is only a slight improvement over the *Base-Line Case,* 3.75 to 4.25 percent in

[1] *Prospects for Soviet Oil Production* was followed by publication by the CIA of two more reports on the subject: *A Discussion Paper on Soviet Petroleum Production* (June 1977), and *Prospects for Soviet Oil Production—A Supplemental Analysis* (July 1977).

[2] Hearings, *Allocation of Resources in the Soviet Union and China—1977,* Joint Economic Committee, p. 108.

23-390—78——2

1977–80 and 3.25 to 3.75 percent in 1981–85.[3] In both cases, growth rates are expected to decline further in the late 1980's to 2.5 to 3 percent.

The third projection, called the *Business-as-Usual Case*, assumes a fuel shortage, possible shortages of other raw materials and several years of bad crops. Under these assumptions GNP growth is forecast at 3.5 to 4 percent in 1977–80 and 2 to 2.5 percent in 1981–85.

It can be seen that the *Business-as-Usual Case* resembles a "worst" case approach and only in this case does the growth rate decline to a 2 percent low. Even here the slowdown is not expected to take hold until the 1981–85 period. (See Table 1.)

In a 1976 major reassessment of defense spending, the CIA doubled its previous estimates of the ruble costs of the Soviet military program and raised the estimated annual rate of growth of military spending in rubles from 3 percent to between 4 and 5 percent. The estimated share of GNP spent for defense was raised from 6–8 percent to 11–13 percent. The CIA did not significantly change its estimates of the size or structure of Soviet defense forces or their estimates of what it would cost in dollars to reproduce those forces in the United States. According to the Agency, the new estimates are based on new information indicating Soviet defense industries are less efficient than was previously believed. In testimony presented to the Committee in June, 1977, the Director of the DIA said his agency believed, on the basis of Communist statements, that Soviet defense spending represents 14–15 percent of GNP.

The implications of the new intelligence estimates, if they are correct, are profound for the U.S.S.R. and the East as well as the United States and the West. For example, Soviet responses to an energy shortfall could involve substantial imports from the OPEC countries, or reduction of exports to Eastern Europe, or domestic rationing, or some combination of these possible actions. Imports of oil would severely reduce Soviet hard currency earnings and could drive up world prices. According to the CIA, a slowdown in economic growth could cause intense debate in Moscow over defense spending and would result in a slowdown in the growth of per capita consumption and in the availability of consumer goods, higher consumer prices, more widespread shortages, and increasing consumer frustration.

Such economic problems would also influence the U.S.S.R.'s relations with the West. The loss of hard currency caused by purchases of foreign oil would strain its ability to pay for imports of Western manufactured goods. According to the CIA, by 1980 there will be increased apprehension in the West about Moscow's ability to manage its foreign debt. In order to insure the efficient exploitation of Soviet energy resources "the U.S.S.R. may have to acquiesce to Western demand for profit sharing, equity ownership, and onsite management control." [4]

The new higher defense spending estimates and the higher proportionate "burden" suggest allocations for defense are a greater drag on the Soviet economy than was previously supposed.

---

[3] In 1974 the CIA esti ated the U.S.S.R. could increase its annual GNP from 4.5 to 5.5 percent for the rest of the decade. Hearings, *Allocation of Resources in the Soviet Union and China—1974*, Joint Economic Committee, p. 21.

[4] *Soviet Economic Problems and Prospects*, p. 25.

4. WEST EUROPEAN PERCEPTIONS

European officials and private experts in the countries visited are, in general, skeptical about the U.S. intelligence community's bleak forecast of the Soviet economy. Europeans agree that the Soviets face serious economic problems but the prevailing attitude is that they are no more intractable than are the West's problems and are balanced by many positive aspects.

Oil Prospects

Virtually all Europeans interviewed agree that the CIA's Soviet oil study is a "worst case" analysis that tends to exaggerate problems and assume they won't be solved. A number of experts feel certain that the problems will be solved. Europeans are impressed with the fact that Soviet leaders themselves have discussed publicly such problems as excessive water injection of the West Siberian oil fields and the high costs and technical difficulties associated with the more distant regions, a sign that corrective actions will probably follow. In support of this view, these points are put forward:

(1) The U.S.S.R. is now the world's largest producer of crude oil. It has the largest proven reserves of coal and natural gas. Its oil reserves are probably second only to Saudi Arabia's, and it continues to make impressive gains in the development of its energy resources. The CIA's estimate of current Soviet proved reserves—30–35 billion barrels—seems much too low.

(2) In addition to supplying its own needs and most of East Europe's, Soviet energy exports to the West have been increasing. Oil exports to the West amounted to $5 billion in 1976 and gas exports exceeded $1 billion in 1977 and are expected to remain high.

(3) The boom in oil and gas pipeline construction in the U.S.S.R. indicates that Soviet leaders give high priority to the energy sector. The Soviets built 5,100 miles of new trunklines in 1976 and planned for 10,000 miles more in 1977. The 5-year plan calls for construction of over 34,000 miles in the 1976–80 period.

(4) Problems of exploration and extraction of new oil and gas can be overcome with the improvements in technology likely to take place through imports from the West.

(5) It is predictable that Soviet oil production will peak and decline eventually. The question is, when and at what rate? The CIA report is in error, it is said, because it shows oil production peaking too soon and declining too fast. History shows oil production often remains on a plateau for several years after peaking, especially when, as in the Soviet case, there are many oil fields. In all likelihood Soviet oil production will peak in the latter part of the next 10 years, not next year or the year after.

(6) The hard currency earned by exports to the West and the influence gained from sales to East Europe are too important to Moscow to be lost through default. Soviet leaders will probably take the policy initiatives necessary to preserve the U.S.S.R.'s status as a net oil exporter. Possible new actions include major increased investment in the energy sector, substitution of natural gas and other energy sources for oil, and conservation.

(7) There are greater opportunities for conservation in the Soviet Union than in the West. For example, average automobile use for government vehicles is high—60;000 miles per auto annually is not unusual—because cars are often driven after hours as well as during the day for official use. Some government employees moonlight as taxi drivers with government vehicles, practically stealing their gasoline from the state. Industrial use of oil is inefficient and there is much room for improvement here.

One European government's study of the oil situation in the Soviet Union, for 1975–85, made before the CIA's Soviet oil study, forecasts a reduced but continuing growth rate for oil production through 1985. Rather than peaking in 1978 or by the early 1980's, as the CIA predicts, the study showed Soviet oil production increasing from about 10 million barrels a day in 1975 to about 12.6 million barrels a day in 1980 and about 13.5 million barrels a day in 1985.[1] The study finds there will be slower growth in oil production and that steps must be taken to slow down the expansion of consumption if the Soviets are to continue exporting large quantities of oil to East Europe. The basic conclusion is that the U.S.S.R. will remain a net oil exporter through 1985. A followup study done in 1977 comes to the same conclusion.

An article in *Der Spiegel*, August 29, 1977, reinforces the impression that the CIA's Soviet oil forecast is not accepted in European circles. The article states "observers of the Soviet Petroleum industry in Western oil companies and independent energy experts are convinced that the CIA forecast is based more on the imagination of agents than on a clear-cut analysis." According to *Der Spiegel*, an official of British Shell, Jeremy Russell, believes the water flooding problem is not as serious as the CIA thinks it is. Mr. Russell also observes that despite this and other problems Moscow has been able to increase production in the West Siberian fields during the past 7 years. The article concludes that the CIA underestimates the productiveness of Soviet oil fields and that nuclear energy and gas and coal reserves can relieve the burden on the oil industry.

Economic Growth

Although not as sharp as criticism of the oil study, criticism of the CIA and DIA overall forecast for the Soviet economy is widespread. None of the persons interviewed believe a crisis is pending or that growth rates will decline to the levels forecast by the U.S. intelligence community. Europeans tend to discount the more dire forecasts as a renewal of the predictions frequently made in the past of "imminent collapse" of the Soviet economy. A number of experts, when asked to comment on the U.S. estimates, recalled earlier Western judgments

[1] The CIA predicts Soviet oil production will be less than 10 million barrels a day in 1985. Hearings, *Allocation of Resources in the Soviet Union and China—1977*, Joint Economic Committee, pp. 6, 48.

that proved erroneous, such as the Soviet economic system resting on "feet of clay."

At the risk of oversimplifying a complicated subject, Europeans who have made assessments of Soviet economic prospects can be said to fall into two groups. One group contends that the growth slowdown stems from the Soviet system of central planning and that problems will get worse unless fundamental reforms are adopted. The second view is that with all its limitations central planning has served the U.S.S.R. well and that most of its economic problems can be handled through improvements in the system. They believe the command economy can be made more efficient. To characterize the two approaches in another way, one type of observer focuses on the recent unsuccessful efforts of the Soviet Union to "catch up" with the West; the other notes the distance traveled since the Revolution and the continuing incremental gains.

Those who believe Soviet central planning is the main cause of the growth slowdown stress the gaps between plans and results, and are more pessimistic about the outlook. One such observer, a French official, reviews the "objective causes" of Soviet economic difficulties—the diminution of the labor supply, higher costs of raw materials located in northern and eastern regions, the effects of bad weather on crops—and finds that they do not adequately explain the situation. He suggests the real problem is "the country's system of organization" which results in numerous planning errors, construction delays, losses of productivity in industry and agriculture, imbalances between supply and demand, and poor technology transfer.[2] This official, quoting Leonid Brezhnev on the need for improving "the existing economic mechanisms," concludes that a radical remodeling of the system is necessary to restore vitality to the Soviet economy.

But even those who indict the Soviet system predict steady although slower growth. Most hedge their projections with the possibility that foreign trade, productivity improvements and other factors could improve growth prospects. Others maintain that what matters is not the shortfalls between plan and performance but the state of the economy from one year to the next. They argue that national income has been growing and should continue to grow. Some add that many Westerners do not understand that Soviet planning is a decision-making process, that plans are made to be adjusted and that the planners know the results will differ depending upon circumstances.

All of the persons interviewed recognize that the high growth rates of the past will not be matched in the future. Soviet leaders seem to acknowledge this when they speak publicly of the problems of a "mature" economy. Most European observers of the Soviet economy understand that it faces serious shortcomings. They do not question the descriptions of the shortcomings in U.S. intelligence reports. What they do challenge are the conclusions American intelligence experts have drawn about what the current difficulties imply for the future. It is significant that, in NATO's view, Soviet economic growth will be sufficient to allow for continuing increases in defense spending and gradual improvement of the standard of living.

As noted earlier, in only one of the three sets of CIA projections does the Soviet growth rate fall to 2 percent, and that case assumes a

[2] *U.R.S.S.; Politique Economique*, Gerard Wild. *Encylopaedia Universalis, Energy Supplement for 1976*, pp. 101–105.

fuel shortage and several years of bad crops. In the other two sets of projections the rates of growth, while below the U.S.S.R.'s high growth rates of the 1950's and 1960's, are within the historical ranges for most Western industrialized nations. Table 2 shows the average annual growth rates in 1971–75 for the U.S., four European countries, and the U.S.S.R. The range is from 1.7 percent for West Germany to 3.7 percent for France. The U.S. average was 2 percent. These rates were heavily influenced by the recession of 1974–75. U.S. growth for 1966–70 averaged 3 percent and the 15-year U.S. average, 1960–75, was 3.2 percent.

European analysts do not regard the 3 percent range growth forecasts for the Soviet Union as alarming. Although that rate represents a slowdown for the U.S.S.R., growth of from 3 to 4 percent is considered quite satisfactory in most Western countries. A growth rate of 2 percent for the Soviet Union would be viewed with greater concern. However, most analysts are highly skeptical that the slowdown will go that far.

A principal reason for skepticism is rejection of the idea of an impending Soviet energy crisis. As mentioned earlier, European analysts are much less critical of the Soviets than is the CIA for alleged mismanagement of their oil fields. If the Soviets solve their fuel problems GNP could grow from 3 to 3.5 percent annually in the 1981–85 period, according to the CIA's own analysis.

Many experts are also optimistic, with reservations, about Soviet agriculture. It is difficult to identify the factors that will provide the basis for future growth of production. The farm labor force is declining, a decrease in the rate of capital formation seems likely, and there will be no significant increase in the land under cultivation. Further, there is always the chance of crop disasters due to bad weather.

But it is also true that in the past 25 years there have been remarkable gains in agricultural production (3.4 percent annually since 1951) and per capita food consumption (100 percent since 1951), and those who have observed these achievements are unwilling to predict a reversal of the long-term trend.

The key question about Soviet agricultural prospects concerns productivity. Significant improvements in productivity could enable the Soviets to overcome the admittedly serious obstacles they now face and even release part of the labor force to other sectors. Europeans argue that no one knows enough about the Soviet Union, perhaps not the Soviet leaders themselves, to confidently predict whether or not, or by how much, productivity will increase.

A further reason for skepticism about U.S. intelligence forecasts is that Europeans have reason to doubt the accuracy of economic forecasting. The level of confidence in forecasts is especially low with respect to efforts to predict what will occur in the Soviet Union, some Europeans say.

Experts in two countries noted that a CIA 1975 report on Soviet foreign trade, concluding that the Soviets would have no near-term need for credits, turned out to be wrong. The report, *U.S.S.R: Long-Range Prospects for Hard Currency Trade*, forecast that for the 1975–80 period the U.S.S.R. would probably continue to earn ample foreign exchange to pay for imports from the West. The CIA based this outlook on the increased prices being paid for Soviet oil,

gas, gold and other products and the expansion in the volume of Soviet exports. But in 1975 and 1976 the recession and inflation in the West adversely affected Soviet trade and Soviet grain imports added to large hard currency trade deficits. One official said that the turnaround in the U.S.S.R.'s trade position demonstrates how difficult it is to make accurate economic forecasts.

Soviet Military Spending

In the area of Soviet military spending, government officials tend to agree with current CIA estimates, with reservations. Some government officials believe that the CIA's revision of ruble expenditures and the defense burden did not go far enough, that the true levels are slightly higher than the CIA believes. In two countries officials said Soviet defense spending equals at least 15 percent of GNP.

Another kind of reservation is found mostly outside government circles. Specialists at universities and research centers argue that the U.S. intelligence community has a virtual monopoly of first-hand information about Soviet military spending, that no other country has invested comparable resources in electronic fact-gathering and analytical capabilities, and that it is not possible for outsiders to contribute much to questions about how much the Soviets are spending for defense.

Some government officials believe it is feasible to derive reasonably accurate defense expenditure estimates through analysis of Soviet official budget statistics. This approach is much less costly than the CIA's "building block" or direct costing method whereby information is derived from satellites and other forms of electronic intelligence. Budget analysis, though, is limited by the need to fill in gaps with subjective judgments. This is not to say subjective judgments are absent from the direct costing approach. Comparisons of U.S. and Soviet defense spending are hampered by the lack of information about Soviet manufacturing costs and the difficulty of estimating what it would cost the Soviets to reproduce advanced U.S. technology they do not possess. The CIA concedes its estimates of Soviet research and development spending are not very reliable. The CIA's reassessment of ruble expenditures is an admission that its earlier estimates were incorrect. In several countries, analyses of Soviet budget figures and use of unclassified information produced spending estimates close to the CIA's current estimates. Some Europeans are favorably impressed with the work of certain American analysts who also use the budgetary method.

A private expert said that the new CIA estimates seem more accurate than they were before because of the relationship between GNP, defense spending and the defense burden. Soviet GNP is roughly half that of the United States and Soviet military outlays are either the same or somewhat higher than in the United States. As the U.S. defense burden is about 6 percent, the Soviet burden must be about twice as high.

There seems to be universal agreement that the Soviets lag behind the West in military technology. Some experts believe the gap is widening, others that it is closing so slowly the U.S.S.R. will never catch up if present trends continue. Only in ground equipment is there something like technological parity. Even here, Soviet tanks are con-

sidered technologically inferior to NATO's. In aircraft engines, missiles and electronics and other areas the Soviets are years behind the West.

Several explanations were offered to explain the technology lag:

(1) The Soviets lack the kind of civilian technology base that exists in the West. For example, the absense of a large domestic civilian computer industry in the U.S.S.R. has retarded computerization of the military sector.

(2) There is an absence of competition in the defense industry and of incentives for technological risktaking. Soviet planning places a premium on production of finished products, and the military procurement system places a premium on speedy research and development. The result is a tendency to find quick, conventional and safe solutions to technical problems.

(3) The Soviet Union is in many respects a labor intensive society and many of their weapon systems are sophisticated in a labor intensive way. Such weapons may be as effective as Western counterparts but they are usually more costly.

(4) Soviet military doctrine emphasizes quantity rather than quality in defense production. For example, the Soviets assume that ground combat vehicles will be replaced with fresh ones rather than repaired in the field. Thus they are built in large quantities with many held in storage. Soviet ICBM's are designed as high-yield weapons to make up for their lack of accuracy. Tanks tend to be relatively simple, uncomplicated and built in large numbers. New weapons are built with many parts common to earlier versions and modest, evolutionary changes from one generation to another are preferred.

Soviet defense production is thought to be far less efficient than the West's. Some experts attribute this to the central planning system. One problem is that, in the absence of advertising, plant managers often do not know where to get supplies and equipment. Although Soviet defense industries appear to be more efficient than Soviet civilian industries, defense production costs are very high and the sophistication and quality of a number of Soviet weapons recently examined turned out to be lower than expected.

The Soviet defense industry, several persons said, is not as different from the civilian industry as is commonly believed. It is true that the defense industry gets priority treatment with respect to resources. But it does not get as much as it wants. Defense production priorities are established in the context of overall economic constraints. Bottlenecks, shortages and delays, which plague the entire industrial sector, exist particularly at the advanced technology level in defense as well as in civilian industries. The wish to avoid these problems may partly explain the Soviet approach to design. The defense industry gets preference, not necessarily satisfaction.

NATO has adopted the CIA rationale for the CIA's revised spending estimates, namely, that there were substantial price increases for military hardware and a change in Soviet pricing policy between 1955 and 1970. The major implications of the new estimates are that the productivity and cost effectiveness of Soviet arms industries have been overestimated in the past. NATO also agrees that the new spending estimates do not change assessments of the size and structure of the Soviet military program.

NATO officials believe a one-way street exists between the defense and civilian industries in the U.S.S.R. The defense sector benefits from technological advances in the civilian industries but because of the secrecy that surrounds arms production the civilian sector is not able to take advantage of advances that originate in the defense industries. The official NATO view is that despite low productivity in defense production the high priority it gets results in sophisticated equipment comparable with that manufactured by other major industrialized countries. However, officials concede that the Soviets lag behind the West in many areas and that their cautious approach to R. & D. reduces chances for technological breakthroughs.

Trade, Tradeoffs, and Leverage

A debate has been taking place in the U.S. about whether Moscow's growing economic problems and need for improved technology provide the West with potential "leverage," opportunities for influencing Soviet policy by extending or withholding trade, technical know-how and credits.[3] Although the U.S. intelligence community has not taken a public position on this matter it has been the subject of discussion in Congress, partly because of CIA speculations about various actions Moscow might take to offset an energy shortage, a hard currency squeeze, lagging growth and other problems.

Europeans tend to stress the economic rather than the political opportunities in trade with the U.S.S.R. There is a strong drive within the governments of all the countries visited to expand trade with all of Eastern Europe. The idea that the West could use its trade position for political purposes is considered naive and unrealistic.

A French expert said that the question for France and the West is not whether to trade with the Soviet Union but how to trade. This individual stressed the fact that if the Russians are required to pay fair market prices for their purchases, they must reallocate and make choices. In an economy of scarcity, they cannot do everything they want. Resources used to pay for imports are unavailable for use elsewhere. Americans, this person said, tend to be overly concerned with export controls of items that might be used for military purposes, though he acknowledged military equipment should not be sold. Despite COCOM [4] lists and embargoes, the Soviets can probably get what they need from one source or another, and the West would be better served by concentrating on the economic rather than political dynamics of trade. A government official who agreed with these views stated flatly that COCOM is no longer useful. This person and others cited examples of sales from Western firms to third parties, who in turn delivered items to the Soviet Union or to East European countries in order to avoid COCOM.

In West Germany officials and private experts are enthusiastic about future trade prospects with the Soviet Union. Most seem unconcerned with fears that the Soviets will gain advantages over the West through the acquisition of technology. No one consulted thought that the West could usefully employ leverage against the U.S.S.R.

---

[3] For discussion of this question see Hearings, *Allocation of Resources in the Soviet Union and China—1977*, Joint Economic Committee, pp. 55-56, 128-129, 180-182.

[4] The Consultative Group Co-ordinating Committee (COCOM), established by an informal agreement in the early 1950's by the NATO countries, except Iceland, maintains a list of strategic products which are not supposed to be exported to Communist countries.

One official said there was not a single example of the Soviet Union granting concessions for trade. When asked if there is any inconsistency between Western fears of the Soviet military buildup and trade between the West and the Soviet Union, an official replied that there was no need for the government to justify trade. Trade, he said, justifies itself on economic terms.

It is acknowledged that delivery of technology to the U.S.S.R. could indirectly enhance its military capabilities. For example, the sale of a fertilizer plant would allow the Soviets to continue spending for defense without shifting resources to develop their own fertilizer industry. But a number of officials said that economic interdependence is in the West's interest, unless economic relations with Moscow are viewed as trading with the enemy. If so, all trade should be embargoed including grain sales.

Most Europeans believe that Moscow's need for technology and credits cannot be used to force it to do anything it does not want to do. Some believe that even if the Soviets need trade to maintain growth, it would not be in the interests of the West to withhold trade because a Soviet Union that is advancing economically is to be preferred over one that feels it has its back up against the wall. On the other hand, it would be equally undesirable for the West to bail out the Soviets as this would remove any incentive on their part to reallocate from military to civilian programs. But Soviet leaders feel strongly about self-sufficiency, and if there is any hint that they are becoming dependent upon Western sources or that they are being required to make concessions for Western technology, they will choose to cut off imports even if it means postponing a new program. This could result in more rather than less military spending.

Some argue that the West is too pluralistic and trade oriented to effectively use leverage anyway, that the large number of countries and business firms make it impractical to control trade to the extent implied in a leverage policy. There is no one in the West who can turn off trade with Moscow. President Ford was unable to stop wheat sales to the U.S.S.R. during the Angola crisis. The consensus is that Western trade with the Soviet Union will continue to grow regardless of steps the U.S. might take to restrict or liberalize its trade policies, provided a major recession does not occur in the West and Moscow does not run out of foreign exchange or credits.

5. SUMMARY OF WEST EUROPEAN PERCEPTIONS

The following summarizes the way Europeans in the countries studied perceive Soviet economic trends:

Soviet Economic Prospects

Economic growth in the Soviet Union has been slowing down and will probably continue to do so. The slowdown is occurring in part because the Soviet Union is becoming a mature economy, in part because of unfavorable trends in labor force growth, productivity and investment. But there are also favorable trends in some sectors and the overall outlook is for continued growth.

The Soviet economy is expected to continue growing at rates adequate to support development of domestic resources, modest improvements in consumer welfare, increases in military spending and imports of Western technology.

Precise forecasts of the Soviet economy are considered unreliable because of the Soviet Union's size and complexity and the inherent limitations of economic forecasting.

Soviet leaders are aware of and have discussed publicly the problems in the oil sector cited by U.S. intelligence analysts. The admittedly serious difficulties will probably be overcome. The Soviets will not become net importers of oil in the 1980's.

Soviet Military Trends

There is general agreement with the CIA's upward revision of Soviet military spending and its burden on the Soviet economy. The magnitude of the revisions has caused concern about and reduced confidence in the U.S. methodology for calculating the costs of the Soviet military program and its burden on the economy.

Military spending is expected to continue to grow at about the current rate.

Soviet defense production is considered less efficient than previously believed and technologically inferior to the United States.

Trade, Tradeoffs, and Leverage

Europeans are eager to maintain and expand trade relations with the Soviet Union on terms that are fair to all parties. Trade relations are justified principally on economic grounds.

COCOM export controls are considered outdated, excessive and in some respects unworkable, although it is acknowledged that military equipment and "missing links" of military technology should not be sold to the Soviet Union.

The idea that the West can use trade leverage against the Soviet Union in order to influence Soviet policy is discounted as unrealistic and counterproductive.

6. CONCLUSIONS

The views elicited in this type of survey cannot be considered conclusive about the future economic developments. The Soviet economy is not easy to analyze. Official statistics are often incomplete or misleading and it may not be possible to verify facts because of the closed nature of Soviet society. As for future trends, there are inherent shortcomings in the science of economic forecasting under the best conditions, as American economists and policymakers know. Thus, European assessments of the Soviet economy are liable to be in error just as American appraisals may be.

One need only recall the worldwide grain shortages and the U.S. sales of grain to the Soviet Union in 1972, the Arab oil embargoes of 1974, and the discovery of the North Sea oil field to understand that unanticipated events can profoundly change economic conditions and prospects for entire countries and regions. Many forecasters have learned to qualify their predictions and not try to look too far into the future.

The Joint Economic Committee distinguishes between forecasts and projections. In its forecasts, the Committee attempts to predict what will probably occur based on reasonable expectations that current economic trends and policies will continue. Projections are used for longer periods but are not predictions. They are statements of what will occur under certain assumptions. Usually it is assumed that policies will remain constant, but a projection can be made on the assumption that a new policy will be adopted. Other assumptions may concern government spending, revenues, industrial production, consumption, etc. A projection is a conditional statement. The assumptions are always explicit and the high degree of uncertainity surrounding projections is always recognized.

A similar approach is followed by many European analysts. For example, Calmfors and Rylander, in a study prepared for the Joint Economic Committee, used an economic model to study the relationship between defense spending, consumption, production and growth in the U.S.S.R. for the period 1975–85. They state at the outset that ideally such an analysis should be based on historical data about the relationship between various factors and economic growth in the Soviet Union. In the absence of the historical data, the authors make assumptions about the relationships between the growth of the capital stock, the growth of the labor force, and the growth of total factor productivity. The study which was intended to inquire into the economic restrictions on Soviet defense spending, concludes that if consumption and GNP are to increase by 4 to 5 percent annually, defense expenditures must not rise by more than 2 to 3 percent annually. Stated another way, the authors find that economic growth could increase by 4 to 5 percent if defense spending increases by no more than 2 to 3 percent and if consumption rises by no more than 4 to 5 percent annually.

In another study published by the Committee, Bergendorff and Strangert use a more complex model to project Soviet economic growth and defense spending. They conclude that if investments maintain their present share of GNP, a 4 percent rate of GNP growth and a 3 percent increase in defense spending are feasible for the 1975–85 period. Again, the authors carefully spell out their assumptions and explain that there are many elements of reality not captured by the model.[1]

While the authors of the two studies mentioned above and other European analysts project a GNP growth rate in the range of 3–4 percent in the 1975–85 period, none of them would *predict* that a specific rate will be achieved. They realize that unanticipated events, deviations from expected activities and changes in Soviet policies can drastically alter future economic behavior. Many Europeans consider the U.S. intelligence outlook for the Soviet economy too absolute and not sufficiently qualified.

Soviet energy activities have had direct and beneficial effects on Western Europe from 1971–75. In 1976 the Soviets imported 3 million tons of mostly wide diameter pipe valued at about $1.5 billion. In the period 1970–75 the Soviet Union imported 11.1 million tons of pipe valued at $4.2 billion, about $3.2 billion of which came from the hard currency countries. About one-third of pipe imports in 1976 came from West Germany and France, much of which is to be paid for by deliveries of Soviet natural gas. European participation in this program may partially explain why western analysts are bullish about Soviet energy prospects.

It can be seen that Soviet construction of new pipelines does not by itself mean production will rise or fall in the future although it may indicate what the Soviets believe. A more significant argument against the CIA's forecast is that historical experience shows oil production from existing fields normally levels off for several years after reaching a peak, rather than peaking and declining rapidly, especially when there are numerous fields in widely separated locations. Our own experience, however, suggests that it is possible for a nation's oil production to peak and decline in a relatively short time. U.S. oil production peaked in 1970 at 9.6 million barrels per day, and went down to 8.1 million barrels per day in 1976, a 16 percent decline. The CIA forecasts a decline of as much as 21 percent in a similar period for the Soviet Union.

According to the CIA, NATO members for the most part accept the CIA's direct-costing estimates of Soviet military spending and two countries, England and West Germany, have direct-costing efforts of their own underway. In France, U.S. intelligence analysts say, estimates based on Soviet economic statistics are lower than those made by the CIA.

Nevertheless, Europeans believe the methodology based on Soviet statistics holds great promise because in some cases it produced results closer to the CIA's current estimates than those of the CIA prior to the 1976 revision. An attractive feature of this approach is that it requires far less resources in manpower and equipment than direct costing. The CIA also analyzes Soviet official statistics as a complement to direct costing. But the results of the CIA's analysis of official statistics are not known.

---

[1] Lars Calmfors and Jan Rylander, *Economic Restrictions on Soviet Defense Expenditures;* Hans Bergendorff and Per Strangert, *Projections of Soviet Economic Growth and Defense Spending, Soviet Economy in a New Perspective,* Joint Economic Committee, 1976, pp. 377–393, 394–430.

Trade, including trade with the Soviet Union, is much more important to the countries of Europe than to the United States. Tables 3 and 4 show how trade with the Soviet Union has increased in France, West Germany, Sweden, the United Kingdom and the United States since 1960. Table 5 shows the comparative importance of trade in the same countries. The ratio of total trade to GNP in the European countries ranges from more than twice to more than three times the ratio in the United States.

The Europeans also devote a proportionately larger share of their total trade to the Soviet Union than does the United States, and this difference is greater when trade to East Europe is considered. Table 6 shows 7.1 percent of West Germany's trade, 5.8 percent of Sweden's trade, and 3.9 percent of France's trade goes to the Soviet Union and East Europe. The figure for the United States is 1.8 percent.

The comparatively greater importance of trade with the Soviet Union and East Europe may help explain why Europeans regard COCOM as outmoded. The Soviet Union is a much more important trading partner to the Europeans than to the United States and COCOM is viewed as more of a hindrance to them than to the United States.

Overall, the CIA deserves high marks for its recently published studies of the Soviet economy. The Agency has developed a unique and in some ways unrivaled capability for analyzing Soviet economic developments. It is especially commendable that so many of its studies have been issued as public documents in recent years so that others can see how U.S. intelligence estimates are derived. Those who have disagreed with the CIA have taken issue not so much with the facts or the analyses as with the conclusions about what will happen in the future.

The value of the CIA studies and forecasts is not diminished by the controversies they have created. On the contrary, it is evident that experts here and abroad have been forced by the strength of the studies to reevaluate their own understanding of Soviet economic behavior. The CIA has performed a major service by churning up the community of Soviet watchers, causing them to examine long-held, comfortable beliefs. Presumably, the new intellectual ferment will prove beneficial to policymakers.

7. IMPLICATIONS

Trade with the Soviet Union and military support of NATO are two of the most important areas of disagreement between Western Europe and ourselves. The lack of concensus in these areas is in part due to differences between European and U.S. perceptions of the Soviet economy as well as different attitudes toward the transfer of technology.

Europeans see a stronger Soviet economy, one with a more favorable outlook, than we do. They see stability, growth and a rising level of foreign trade. They do not foresee an imminent Soviet oil shortage and they expect Soviet oil and gas exports to the West to continue. They also see a Soviet Union struggling to catch up with the West, but never quite succeeding.

The U.S. would like to see Europeans impose tighter restrictions on trade with the Soviet Union. Rather than follow the American lead, however, they are likely to take steps to improve their trade relations with the Soviets. From their vantage point, any trade opportunities the U.S. denies to itself are possible windfall gains for themselves.

Europeans believe, with good reason, that the U.S. cannot successfully enforce controls over technology transfers to the Soviet Union and they see no difference in principle between trading foodstuffs and trading technology. Europeans also believe the U.S. attitude toward this question is inconsistent. Everyone agrees that the West enjoys a wide technological lead over the Soviet Union and that the Soviet system of central planning tends to retard innovation. But U.S. policy, in European eyes, seems to be based on the schizophrenic premise that its economic system is both superior to and in danger of being overtaken by the U.S.S.R. Europeans, for their part, will admit that their permissive attitude toward Soviet trade does not quite square with a strict construction of NATO's military requirements.

Policies toward NATO appear to be inconsistent on both sides of the Atlantic. Europeans believe the Soviet economy will be able to support improvements in the standard of living and increases in military spending. One might reasonably assume that this perception would heighten concern about the military threat, especially in light of recent advances in Soviet military capabilities. But the European attitude about the military threat is much more relaxed than the American attitude. It is true that our European allies have pledged to strengthen their support of NATO. But they continue to lag behind the United States in actual resource allocations for defense and at least one country, England, is reducing its defense spending in 1978. France continues to pursue her semi-independent course within NATO.[1]

[1] For a discussion of discrepancies between U.S. and Western European forces in NATO, see Sheila K. Fifer, *U.S. Air and Ground Conventional Forces for NATO: Overview*, Congressional Budget Office (1978).

U.S. intelligence perceives that Soviet economic problems are growing worse and that the outlook is for shortages of manpower and energy. Moscow, according to the CIA, may soon have to decide whether to reduce the size of its armed forces in order to maintain the supply of manpower for the civilian economy, and reduce military spending in order to attempt to improve economic growth. But the perception of serious weaknesses in the Soviet economy is not altogether consistent with the recent U.S. policy of increasing military forces for NATO. Some Europeans believe the renewed anxiety over NATO is more a result of the shift of American attention away from Southeast Asia and back to Europe than a change in the military balance. They argue that improvements in Soviet capabilities have been offset by improvements in NATO capabilities in recent years and they cite the London based Institute for Strategic Studies for the conclusion that "the overall balance is such as to make military aggression appear unattractive." [2]

The divergent perceptions of Soviet economic trends cannot be reconciled at this time. U.S. European policies concerning Soviet trade and NATO are dissimilar and uncoordinated. U.S. and European policies are also not consistent with the assumptions being made about the Soviet economy. The picture one gets is of nations pursuing their immediate self-interests without much regard for long-term consequences.

The following suggestions are made in the hope that improved analyses will lead to improved policies:

(1) Further study is required to determine whose perceptions of the Soviet economy are more likely to be correct, the possible consequences of future Soviet economic conditions for Soviet economic and military policy, and consistent trade and military policies that the West might follow.

(2) Any further inquiry into future Soviet economic trends should recognize that it is not possible to *forecast* the GNP growth of the Soviet Union 5 years or more into the future, but that it is possible to *project* future economic growth. The assumptions underlying economic projections should always be clearly spelled out.

(3) The methods employed by some European governments to estimate Soviet ruble expenditures for defense—which include analysis of official Soviet figures and other nonclassified information—seem at times to have produced better results than the CIA's direct-costing method for estimating Soviet ruble expenditures. A determination should be made about (*a*) the merits of the various methods for estimating Soviet defense spending and (*b*) the feasibility of establishing a group within the legislative branch for estimating Soviet defense spending and other resource allocations.

(4) The publication of analyses by the U.S. intelligence community of Soviet economic trends has been an invaluable source of information for governments throughout the West. It would be useful if other governments published their assessments of the Soviet economy.

[2] *The Military Balance, 1976–1977.* The International Institute for Strategic Studies (1977), p. 103.

8. TABLES

TABLE 1.—CENTRAL INTELLIGENCE AGENCY POLICY CONDITIONED FORECASTS OF SOVIET GROWTH[1]

	Average annual percentage rates of growth					
	1977–80			1981–85		
	Factor inputs	Productivity	GNP	Factor inputs	Productivity	GNP
Base-Line Case (successful response to fuel raw material problems)	3.5	0.25 to 0.75	3.75 to 4.25	2.75	0.25 to 0.75	3 to 3.5.
Business-as-Usual Case (fuel and raw material shortages)	3.5	0 to 0.5	3.5 to 4	2.75	−0.75 to −0.25	2 to 2.5.
Best Case (successful response to fuel and raw material problems and vigorous manpower and investment policies)	3.5	0.25 to 0.75	3.75 to 4.25	3.25	0 to 0.5	3.25 to 3.75

[1] Source: Central Intelligence Agency, "Soviet Economic Problems and Prospects," 1977.

TABLE 2.—GROWTH OF REAL GROSS NATIONAL PRODUCT, AVERAGE ANNUAL RATE OF GROWTH, SELECTED INDUSTRIALIZED NATIONS

	1961–65	1966–70	1971–75
1. United States	4.7	3.0	2.0
2. Sweden	5.0	3.9	2.6
3. France	5.8	5.3	3.7
4. United Kingdom	1.6	2.2	2.0
5. West Germany	5.1	4.8	1.7
6. U.S.S.R	5.0	5.5	3.8

Source: Central Intelligence Agency, "Handbook of Economic Statistics," 1976.

TABLE 3.—EXPORTS TO THE U.S.S.R., SELECTED WEST EUROPEAN COUNTRIES AND UNITED STATES, 1960, 1965, 1970, 1975, AND 1976

[In millions of dollars]

Country	1960	1965	1970	1975	1976
United States	38	45	118	1,837	2,308
France	116	72	273	1,143	1,119
West Germany	185	146	422	2,824	2,685
Sweden	38	50	131	294	280
United Kingdom	150	129	245	464	432

Sources: "Directions of Trade Annual" (1960–64; 1963–67; 1969–75), IMF, IBRD; Bureau of East-West Trade, U.S. Department of Commerce.

TABLE 4.—IMPORTS FROM THE U.S.S.R., SELECTED WEST EUROPEAN COUNTRIES AND UNITED STATES, 1960, 1965, 1970, 1975, AND 1976

[In millions of dollars]

Country	1960	1965	1970	1975	1976
United States	23	43	77	280	221
France	95	146	203	770	915
West Germany	160	275	342	1,313	1,703
Sweden	63	72	156	526	477
United Kingdom	210	333	528	900	1,193

Sources: "Directions of Trade Annual" (1960–64; 1963–67; 1969–75), IMF IBRD; Bureau of East-West Trade, U.S. Department of Commerce.

TABLE 5.—COMPARATIVE IMPORTANCE OF TRADE, SELECTED WEST EUROPEAN COUNTRIES AND UNITED STATES, 1976

[Dollar amounts in billions]

Country	GNP	Exports	Imports	Total trade [1]	Ratio of total trade to GNP
France	$353.0	$55.6	$64.3	$119.9	0.34
United Kingdom	215.0	45.8	52.3	98.1	.46
West Germany	473.0	102.0	88.0	190.0	.40
Sweden	74.2	18.4	19.1	37.5	.50
United States	1,706.5	114.7	124.0	238.7	.14

[1] Exports plus imports.

Source: Bureau of East West Trade, Department of Commerce; "National Basic Intelligence Factbook," July 1977; "Economic Indicators."

TABLE 6.—PERCENT OF TRADE, SELECTED WEST EUROPEAN COUNTRIES, UNITED STATES WITH SOVIET UNION, AND EAST EUROPE, 1976

Country	Percent of total trade with U.S.S.R.	Percent of total trade with U.S.S.R. and East Europe [1]
France	2.0	3.9
United Kingdom	1.7	3.1
West Germany	2.3	7.1
Sweden	2.0	5.8
United States	1.1	1.8

[1] East Europe includes Bulgaria, East Germany, Hungary, Poland, and Romania.

○