United States General Accounting Office

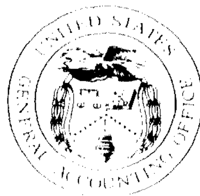
GAO

Report to the Chairman, Committee on Foreign Relations, U.S. Senate

May 1991

SOVIET ENERGY

U.S. Attempts to Aid Oil Production Are Hindered by Many Obstacles



RELEASED

RESTRICTED——Not to be released outside the General Accounting Office unless specifically approved by the Office of Congressional Relations.

United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-243667

May 24, 1991

The Honorable Claiborne Pell
Chairman, Committee on Foreign Relations
United States Senate

Dear Mr. Chairman:

As you requested, we are providing information on (1) the decline in Soviet oil production and the reasons for this decline and (2) the principal obstacles to U.S. trade and investment in Soviet oil exploration and production.

We plan no further distribution of this report until 30 days from the date of this report, unless you publicly announce its contents earlier. At that time, we will send copies to the Secretaries of State, the Treasury, Commerce, and Energy; the Office of U.S. Trade Representative; the President of the U.S. Export-Import Bank; and other interested parties. Copies will also be made available to others upon request.

This report was prepared under the direction of Allan I. Mendelowitz, Director, International Trade, Energy, and Finance Issues, who may be reached on (202) 275-4812 if you or your staff have any questions. Other major contributors are listed in appendix I.

Sincerely yours,

Frank C. Conahan
Assistant Comptroller General

Executive Summary

Purpose

As the Soviet Union takes steps to move from a centrally planned economy toward a market-based system, its ability to produce and export large quantities of oil to help finance industrial development and to purchase consumer goods from the West will be important. The Chairman of the Senate Committee on Foreign Relations asked GAO to provide information on (1) the recent decline in Soviet oil production and the reasons for this decline and (2) the principal obstacles to U.S. trade and investment in Soviet oil exploration and production.

Background

Beginning in 1985 Soviet President Mikhail Gorbachev instituted sweeping political, economic, social, and foreign policy changes. One purpose of these changes was to aid the transition from a centrally planned economy to a market-based economy. Since the Soviet Union is the world's largest oil producer and oil is the source of one-third of its hard currency earnings, the success of its oil industry is important to this transition.

Results in Brief

Since 1988, Soviet oil production has declined by about 8.8 percent. Oil exports also declined, falling about 15 percent from 1988 to 1990.

The primary reasons for the production decline are the lack of sufficient capital for exploration and production and the use of outdated and inefficient production practices. Soviet officials believe that U.S. oil companies could assist in reversing the oil production decline by participating in more U.S.-Soviet joint ventures.

Both the United States and the Soviet Union maintain some policies and practices that hinder U.S. trade and investment in Soviet oil exploration and production. The United States, for example, limits government-sponsored export credit guarantees and insurance. The Soviet Union's political uncertainty and lack of western business knowledge constrain oil trade and investment. Also, the absence of a bilateral tax treaty that would allow U.S. companies to repatriate joint venture profits without double taxation hinders efforts to promote investment in Soviet oil production.

Despite these difficulties, several U.S. multinational oil companies have signed or are considering joint venture agreements. Progress is also being made on overcoming some of these obstacles. For example, some training programs in western business practices have already been developed by the U.S. government, private companies, and universities.

Also, the U.S. and Soviet governments are currently negotiating a tax treaty.

GAO's Analysis

Soviet Oil Production Is Decreasing

Soviet oil production declined steadily from about 12.5 million barrels per day in 1988 to about 11.4 million barrels per day in 1990, a decrease of 8.8 percent. PlanEcon, an economic consulting firm that specializes in reviewing the countries of Eastern Europe and the Soviet Union, expects production to continue to decline to 9.1 million barrels per day by 1994. Soviet oil exports have also decreased, falling from 4.1 million barrels per day in 1988 to 3.5 million barrels per day in 1990, a decrease of 15 percent. PlanEcon also expects oil exports to continue to decline through 1994.

Soviet oil production is declining for several reasons. First, the Soviets lack sufficient capital to finance oil exploration and production activities and maintain older equipment. This lack of capital results from cutbacks in government funding, uneconomical pricing of oil products, and escalating exploration and production costs. Second, according to U.S. oil industry officials, the Soviet Union is using outdated and inefficient production practices. For example, the technique used to drill about two-thirds of new Soviet wells requires frequent changes of drilling bits, which results in lower productivity.

In attempting to spur oil production, the Soviet Union has been actively seeking joint ventures with western companies to obtain capital and technology needed for oil production. In 1987 it issued investment decrees permitting the formation of joint ventures with foreign companies. According to the U.S. Department of Commerce, as of March 1991 between 10 and 20 western companies were discussing potential exploration and production joint ventures with Soviet officials. Several U.S. companies have signed joint venture agreements to date.

Country Practices and Conditions Hinder U.S. Trade and Investment in Soviet Oil

A number of problems impede U.S. trade and investment in Soviet oil exploration and production. U.S. oil companies and petroleum equipment suppliers assert that two 1974 congressional restrictions—the Byrd amendment to the Trade Act of 1974, as amended, and the Stevenson amendment to the Export-Import Bank Act of 1945, as

amended—limit U.S. ability to provide competitive export credit guarantees and insurance. These amendments were enacted when the Congress was concerned about granting credit guarantees and insurance involving foreign production of energy while the United States needed capital to develop energy at home. In addition, the Congress was concerned about subsidizing energy trade with the Soviet Union and about Soviet policies for emigration and its military forces in Europe.

These legislative restrictions (1) prohibit U.S. Export-Import Bank loans and financial guarantees for the purchase, lease, or procurement of any product or service that is used to produce fossil fuel energy resources; (2) limit to $40 million government export credit guarantees and insurance for energy research and exploration projects; and (3) set an overall ceiling of $300 million on the amount of financing that the U.S. Export-Import Bank can support with credit guarantees and insurance.

U.S. embassy officials indicate that political conflicts in the Soviet Union among the central, republic, and local governments over who owns the oil resources and that uncertainty about the legality of existing agreements and contracts between Soviet and western companies are major impediments to doing business in the Soviet Union. As a result, some U.S. companies are trying to protect their investment projects by signing agreements with the central, republic, and local governments.

U.S. oil industry and Soviet officials believe that another major impediment to trade and investment is the Soviet unfamiliarity with basic western business practices and management skills. Some U.S. training and management development programs have been established through joint ventures, but they are usually limited since they only focus on the needs of the specific joint venture. Other programs take a more comprehensive approach. For example, the Department of Commerce manages the Soviet-American Business Intern Training Program, which selects Soviet citizens for training in industry management and business practices at U.S. firms. The Department of State is in charge of the U.S. Technical Economic Cooperation Program, which is designed to familiarize the Soviets with the workings of a market economy. Some U.S. universities offer training in management to Soviet students.

Some U.S. oil companies maintain that the existing U.S.-Soviet bilateral tax treaty lacks provisions on repatriation of profits and foreign income tax credits, which hinders investment. The Department of the Treasury is currently negotiating a new bilateral tax treaty with the Soviet Union that is designed to address these tax issues.

Matters for Congressional Consideration

In light of the changes in the Soviet Union since 1974, when the Stevenson and Byrd amendments were adopted, the Congress may wish to reconsider the continued need for these amendments. A decision to remove the legislative restrictions would not mean immediate U.S. loans and guarantees to the Soviet energy sector. The U.S. Export-Import Bank would, of course, still be expected to apply its standard procedures for assessing the risk of nonrepayment of loans, including country risk analysis, in determining whether loans and guarantees should be extended to the Soviet Union.

Agency Comments

As requested, GAO did not obtain official agency comments on this report. However, GAO discussed the information contained in a draft of this report with officials at the Departments of State, the Treasury, Commerce, and Energy and the U.S. Export-Import Bank. Their comments have been incorporated into the report where appropriate.

Contents

Executive Summary		2
Chapter 1 Introduction		8
	Objectives, Scope, and Methodology	10
Chapter 2 Declining Oil Production		12
	Soviet Oil Production Is Decreasing	12
	Soviet Oil Exports Are Declining	13
	Reasons for Declines in Soviet Oil Production	14
	Soviets Hope to Use Joint Ventures to Reverse Declines	17
Chapter 3 Obstacles to U.S. Trade and Investment in Soviet Oil Exploration and Production		20
	U.S. Policies Restrict Trade and Investment in the Soviet Oil Sector	20
	Political Conflicts Over Ownership of Oil Resources and the Legality of Agreements and Contracts	22
	Absence of Business Management Skills	23
	Bilateral Tax Treaty	26
	Matters for Congressional Consideration	27
Appendix	Appendix I: Major Contributors to This Report	28
Tables	Table 2.1: Soviet Oil Production, 1980-1990, and Projected Through 1994	13
	Table 2.2: Net Soviet Crude and Refined Oil Exports	14
	Table 2.3: Soviet Capital Investment in Oil Production	15
Figure	Figure 1.1: Major Oil Regions in the Soviet Union	9

Abbreviations

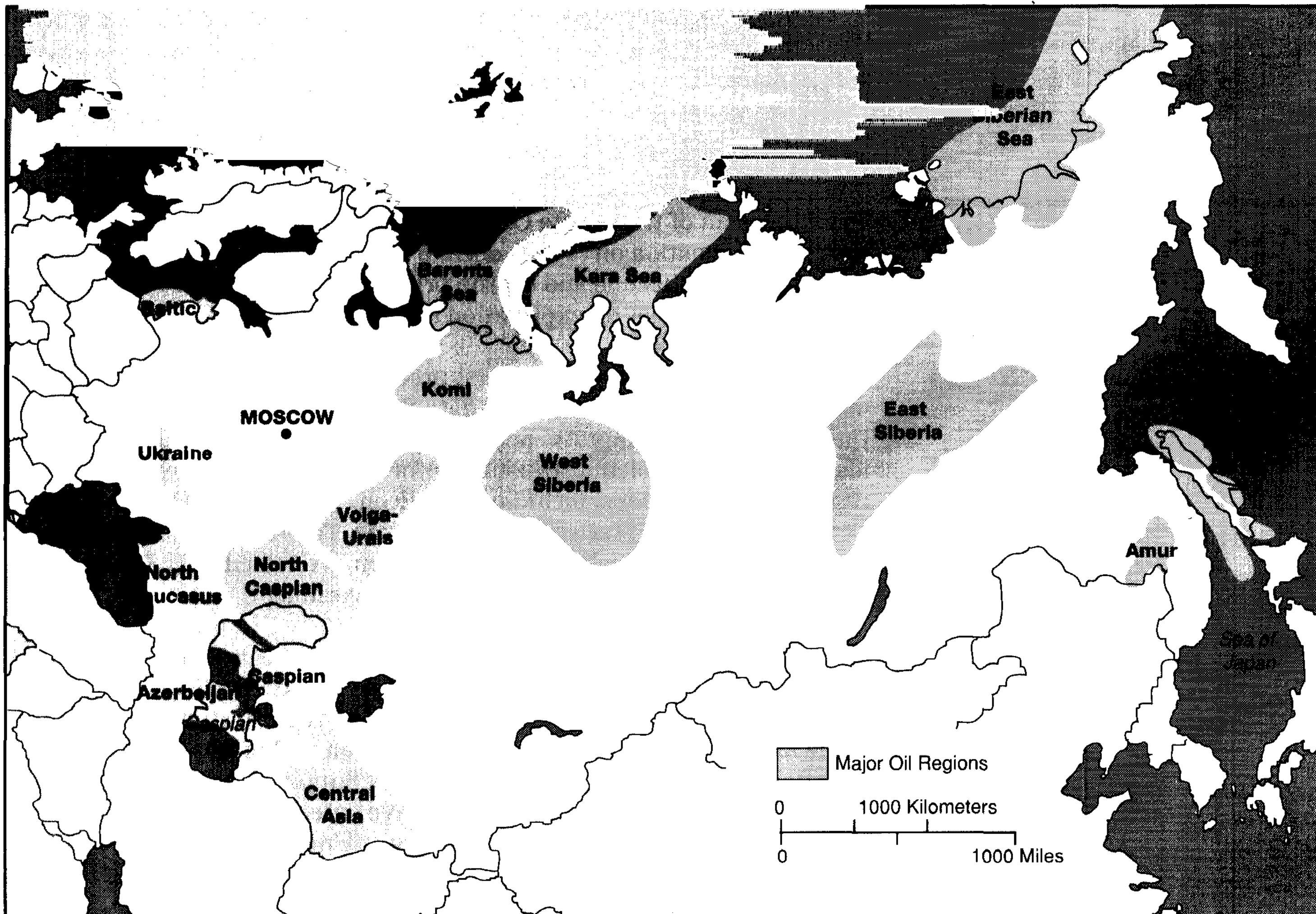
GAO General Accounting Office

Introduction

In 1985 Soviet President Mikhail Gorbachev instituted sweeping political, economic, social, and foreign policy changes. One purpose of these changes was to begin the transition from a centrally planned economy to a market-based economy. As it makes this transition, the Soviet Union has been relying on its vast oil reserves to help finance industrial development and to purchase consumer goods from the West. Oil exports provide approximately 33 percent of all hard currency earnings for the Soviet Union.

The Soviet Union has the sixth highest oil reserves in the world, which are estimated at between 60 billion and 80 billion barrels. These reserves are located primarily in two areas: West Siberia and the Volga-Urals region, both within the Russian Republic. (See figure 1.1.) New reserves are being explored in the Timan Pechora region of the Republic of Komi, East Siberia, and the offshore areas of the Kara and Barent Seas. Other potential areas include Sakhalin Island and the Sea of Okhotsk.

Figure 1.1: Major Oil Regions in the Soviet Union



Note: The U.S. government has not recognized the incorporation of Estonia, Latvia, and Lithuania into the Soviet Union. Other boundary representation is not necessarily authoritative.
Source: Soviet Energy Data Handbook, May 1990.

The Soviet Union is the world's largest oil producer, producing about 11.4 million barrels per day in 1990. In West Siberia, 60 to 70 percent of Soviet oil is produced. The Volga-Urals region produces 20 percent of the oil, and the North Caspian Basin, North Caucasus region, Central Asia, Komi, and the Ukraine produce the remaining oil.

The Soviet Union is the world's second largest exporter of oil. In 1990 it exported about 3.5 million barrels of oil per day. The Soviet ruble is not an internationally accepted currency, and therefore, the Soviet Union uses foreign hard currency to obtain needed equipment and technology. A significant portion of hard currency earnings comes from oil exports. For example, in the first 9 months of 1990, oil exports accounted for about 33 percent, or $10.6 billion, of Soviet hard currency earnings.

Objectives, Scope, and Methodology

The Chairman of the Senate Committee on Foreign Relations asked us to provide information on (1) the decline of Soviet oil production and the reasons for this decline and (2) the principal obstacles to U.S. trade and investment in Soviet oil exploration and production.

To obtain information on Soviet oil production declines, we interviewed officials and reviewed statistical data from the Department of Energy, the intelligence community, and the International Energy Agency.[1] We also reviewed petroleum statistical information compiled by various research organizations, including PlanEcon, Washington, D.C., and 20th Century Petroleum Statistics, Dallas, Texas. To provide information on the reasons for the decline in oil production, we talked to U.S. experts on Soviet energy and officials in the Soviet government.

We interviewed officials from the Departments of State, the Treasury, and Commerce; the Office of the U.S. Trade Representative; and the U.S. Export-Import Bank to obtain information on the principal obstacles to trade and investment in Soviet oil exploration and production. We talked to officials from the Petroleum Equipment Suppliers Association as well as from American oil companies that have entered into joint ventures or are considering joint ventures in the Soviet Union. We also attended a seminar on Joint Ventures in the Soviet Union, sponsored by the Institute for International Research.

In performing our work, we visited the Soviet Union and met with the Soviet Minister of Geology, the Soviet First Deputy Minister of the Ministry of Oil and Gas Industry, and members of the Soviet Academy of Sciences. We also visited the Soviet Ukrainian Republic and met with the

[1]The International Energy Agency includes Australia, Austria, Belgium, Canada, Denmark, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. Its purposes are to (1) conserve and diversify world energy supplies; (2) maintain and improve a system for coping with oil supply disruptions; (3) operate a permanent information system on the international oil market and other sources of energy; and (4) pursue energy research and development through cooperation with nonmember countries and international organizations.

Deputy Prime Minister responsible for Metallurgy, Coal, Oil, and Gas; the Deputy Minister of Geology; and officials of the Ukrainian Chamber of Commerce. In addition, we met with members of the Ukrainian Academy of Sciences and the Director General and other officials of the International Management Institute-Kiev. These officials gave us their views on the status of Soviet oil exploration, production, and exports as well as on the type of cooperation they could use from U.S. energy companies to increase oil production. Information on Soviet legal matters does not reflect original analysis but was obtained from Soviet officials.

We performed our work from July 1990 through March 1991 in accordance with generally accepted government auditing standards. As requested, we did not obtain official agency comments on this report. However, we discussed the information contained in this report with officials at the Departments of State, the Treasury, Commerce, and Energy and the U.S. Export-Import Bank. Their comments have been incorporated into the report where appropriate.

Declining Oil Production

Soviet oil production has been declining, a trend that is expected to continue. At the same time, Soviet oil exports have decreased as well. The primary reasons for the declines are the lack of sufficient capital to finance exploration and production activities and maintain older equipment, and the use of outdated and inefficient production practices. Soviet officials hope to address these problems by increasing the number of their joint ventures with western companies.

Soviet Oil Production Is Decreasing

Soviet oil production has declined steadily from about 12.5 million barrels per day in 1988 to about 11.4 million barrels per day in 1990, a decrease of 8.8 percent. PlanEcon, an economic consulting firm that specializes in reviewing the countries of Eastern Europe and the Soviet Union, expects production to continue to decline to 9.1 million barrels per day by 1994.

Production rates for the period 1980 through 1990, along with projections through 1994, are shown in table 2.1. Production also declined noticeably in 1985. At that time the government significantly increased investment funds to reverse the decline. Marginal increases in 1986 through 1988 were achieved, but subsequently the decline continued. Soviet officials acknowledge this drop and expect it to continue.

Table 2.1: Soviet Oil Production, 1980-1990, and Projected Through 1994

Year	Barrels produced per day (millions)	Annual percent change
1980	12.0	NA
1981	12.2	1.7
1982	12.2	0
1983	12.3	0.8
1984	12.2	−0.8
1985	11.9	−5.7
1986	12.3	3.4
1987	12.5	1.6
1988	12.5	0
1989	12.2	−2.4
1990	11.4	−6.6
1991	10.5	−7.9
1992	9.6	−8.6
1993	9.2	−4.2
1994	9.1	−1.1

Note: NA denotes not applicable.

Source: PlanEcon, Soviet and East European Energy Overview, March 6, 1991, and Soviet Energy Outlook: Comprehensive Analysis and Forecasts of Energy Developments to Year 2015 in the Soviet Union, March 1991.

Soviet Oil Exports Are Declining

Soviet gross oil exports fell from a high of nearly 4.1 million barrels per day in 1988 to 3.5 million barrels per day in 1990, a drop of about 15 percent. Of the 1990 exports, about 70 percent, or 2.4 million barrels per day, were exported in the form of crude oil, and about 30 percent, or 1.02 million barrels per day, were exported as refined products.[1]

Oil exports are derived from two sources: domestic production and imports. Table 2.2 shows Soviet net exports of crude and refined products that are derived from domestic production. Net crude oil exports declined by 10 percent between 1988 and 1990.[2] Net exports of refined oil products also decreased between 1988 and 1990, dropping by an aggregate of about 16.8 percent. Between 1989 and 1990 crude oil

[1]Crude exports included crude oil and gas condensates, while refined exports included motor and aviation gasoline, diesel and heavy fuel oil, and other refined oil products.

[2]Projected declines in Soviet oil production will not necessarily result in corresponding reductions in net oil exports. For example, in 1990 total annual oil production fell by about 272 million barrels, while net exports declined by about 66 million barrels, or more than one-fourth of the production declines. In the future, oil exports may not decline if production declines, and may even increase. A determining factor will be the level of Soviet domestic oil consumption, which depends on domestic prices and economic activity.

exports fell by 2.1 percent, while refined oil products fell by 11.8 percent.

Table 2.2: Net Soviet Crude and Refined Oil Exports

Barrels in millions per day

Year	Total net exports	Annual percent change	Net crude oil exports	Annual percent change	Net refined product exports	Annual percent change
1985	3.05	NA	2.09	NA	0.95	NA
1986	3.39	11.35	2.30	9.75	1.10	14.87
1987	3.59	5.85	2.45	6.71	1.14	4.05
1988	3.66	1.85	2.48	1.14	1.18	3.38
1989	3.39	−7.31	2.28	−8.08	1.11	−5.69
1990	3.21	−5.29	2.23	−2.10	0.98	−11.82
1988-90		−12.21		−10.01		−16.84

Note: NA denotes not applicable.

Source: PlanEcon, Soviet and East European Energy Overview, March 6, 1991, and Soviet Economic Performance in 1990, March 27, 1991.

Reasons for Declines in Soviet Oil Production

The primary reasons cited for the decline in Soviet oil production included reduced government capital investment and reliance on outdated technologies.

Lack of Sufficient Capital

The Soviet Union lacks sufficient capital for oil exploration and production because of (1) cutbacks in government funding for oil exploration and production, (2) uneconomical government pricing of oil products, and (3) escalating costs associated with exploration and production.

According to the First Deputy Minister of Oil and Gas Industry, in 1990 the Soviet government reduced funding to all industrial and production sectors to make more money available for food production. As shown in table 2.3, starting in 1988 the annual increases in capital investment for oil production were smaller than in previous years; and in 1990 capital investment in oil production fell by about 700 million rubles,[3] from 15.5 billion rubles in 1989 to 14.8 billion rubles, a decrease of 4.5 percent.

[3]The ruble is not an internationally accepted currency. Within the Soviet Union a number of widely varying foreign exchange rates exist. Therefore, we have not converted rubles to U.S. dollars in this report.

Table 2.3: Soviet Capital Investment in Oil Production

Rubles in billions

Year	Soviet capital investment	Annual percent change
1982	9.6	NA
1983	10.0	4.2
1984	10.3	3.0
1985	11.5	11.7
1986	12.9	12.2
1987	14.6	13.2
1988	15.3	4.8
1989	15.5	1.3
1990[a]	14.8	−4.5

Note: NA denotes not applicable.

[a]Estimated 1990 investment.

Sources: Eastern Bloc Energy - April 1990, cited in "The Soviet Wild Card: Recent Developments and Opportunities in Investment in the Oil and Gas Industry," LPI Consulting (Washington, D.C.: Sept. 1990).

According to the First Deputy Minster of Oil and Gas Industry, the Ministry is expected to finance some of its activities from production revenues to make up for budget allocation reductions. He expects that it will have difficulties because the domestic sales price of oil is too low to generate enough revenues to cover costs. The domestic price of oil in 1989 was 3.4 rubles per barrel. According the Deputy Minister, "a [half-liter] bottle of mineral water cost 4 times as much as a barrel of oil." Because domestic oil prices are set by the central government and are not based on the cost of production, there is no assurance that sales revenues will exceed production costs, thus making funds available to finance production activities. The Deputy Minister said that the government plans to increase oil prices in 1991, but even at the new prices, the price of a half-liter bottle of mineral water will still be about 3 times the price of a barrel of oil.

Capital investment reductions have also affected other areas of the Soviet energy sector. For example, according to experts on Soviet energy, oil equipment manufacturers were forced to reduce their output of high-cost oil extraction equipment because of reduced capital investment. In addition, the shortage of equipment, the slowing of repairs of oil equipment, and increases in the number of idle wells reflect the cutbacks in capital investment.

According to experts in Soviet energy, even greatly increased investment may not be sufficient to stem the decline in Soviet oil industry performance because of the rising cost of exploration and production. Most of the easily recoverable reserves have been depleted, and the Soviets are moving into more remote and technically problematic areas. Consequently, the costs of transporting equipment into and oil out of these areas and the costs of oil extraction equipment and technology are rising, thus heightening the need for further capital investments.

Outdated and Inefficient Production Practices

The decline in Soviet oil production can be partially attributed to the use of outdated and inefficient production practices. These practices include the use of (1) turbo-drilling techniques, (2) water-flooding as an oil extraction technique, and (3) obsolete oil exploration technology and equipment.

Turbo-Drilling Techniques

In the Soviet Union, the most frequently used drilling method results in productivity losses. Approximately two-thirds of all Soviet oil wells are drilled using turbo-drills. Turbo-drilling is a technique well-suited to shallow, hard rock formations such as those found in the older oil fields of the Volga-Urals region. Turbo-drilling is characterized by a high rate of bit rotation, which increases the drill's initial rate of penetration. The higher rate of penetration, however, shortens the life of the bit, thus requiring frequent bit changes.

While appropriate for shallow well drilling, turbo-drilling is inefficient in the deep rock formations found in the new Soviet production areas. Officials within the U.S. Department of Commerce pointed out the relative weakness of turbo-drilling. They said that turbo-drills can only drill 10 feet before they have to be removed from the well and their bits replaced. Western rotary drilling[4] techniques, on the other hand, allow the drill to go approximately 400 feet before a bit must be replaced. According to U.S. energy experts, the main reason why the Soviets use turbo-drills is that rotary drilling requires large volumes of high-strength steel pipe, which the Soviets have not produced in great quantities.

[4]Rotary drilling is a system in which both the hollow drill pipe and the bit are rotated at the surface of the well by a rotary table. Drilling mud is pumped down the pipe and out through fluid courses in the bit, and this fluid conveys the rock cuttings to the surface. This technique differs from turbo-drilling, which uses a down-hole, turbine-powered drilling mud that turns only the attached bit and not the entire drill string.

Water-Flooding Techniques

The Soviet Union uses water-flooding to produce oil in most of its oil fields. Western energy experts report that this technique, employed to increase the initial amount of oil recovered, can eventually result in lower yields from some oil reservoirs. Water-flooding involves drilling multiple wells and injecting water into certain wells to create pressure barriers that force oil toward designated producing wells. According to energy experts, the Soviets employ a master plan calling for the extensive use of water-flooding. They use this technique because it provides higher initial yields than would be achieved relying on primary recovery[5] methods alone. In addition, it requires fewer producing wells, thus lowering production costs.

Energy experts indicate that water-flooding may present some problems. For example, injecting a large volume of water under high pressure may cause the water to channel and reduce the total amount of oil eventually recovered. In many cases high capacity pumps are required to increase fluid flow and maintain oil output, and when these pumps are used, water eventually breaks through to the producing wells and much oil is then bypassed. When water enters producing wells, they have to be redrilled.[6]

Obsolete Exploration Technology and Equipment

According to exploration and geological survey industry experts, the Soviets are using 30-year-old seismic technology long ago abandoned by Western companies. The absence of up-to-date seismic technology means that the Soviets experience more difficulty locating oil-bearing formations that Western companies routinely discover.

Soviets Hope to Use Joint Ventures to Reverse Declines

Soviet officials believe that U.S. private oil companies could assist in reversing the oil production decline by participating in more U.S.-Soviet joint ventures. In 1987 the Soviet Union issued investment decrees to authorize joint ventures with foreign companies, allowing them to own up to 49 percent of the equity. Subsequently, the Soviet Union issued decrees that allow foreign companies to chair joint ventures and to have majority ownership and control of the ventures. According to the U.S. Department of Commerce, between 10 and 20 western companies were discussing potential oil exploration and production joint ventures with

[5]Primary recovery is the initial production of fluids from reservoirs using natural sources of energy to force oil or gas into well heads.

[6]Ettienne H. Deffarges, Robert C. Moeller, and John Elting Treat, "U.S.S.R. E & P Woes Create Opportunities for Service Firms," Oil and Gas Journal (Washington, D.C.: Sept. 24, 1990), pp. 80-89.

Soviet officials as of March 1991. Several U.S. companies have signed joint venture agreements to date.

The First Deputy Minister of the Soviet Ministry of Oil and Gas Industry is seeking joint ventures with western companies to obtain additional capital and modern technology to finance oil exploration and production. He stated that if 1990 levels of production were to be maintained, drilling activities would have to double over the next 5 years, and investments in new pipelines would be needed. These activities require a significant increase in investment at a time when the Soviet government is cutting back investment in oil production.

The Minister of Geology voiced similar concerns and is also looking to foreign investors, particularly American, German, and Japanese, to provide the capital with which to purchase equipment and technology needed to develop the fields. In the past the Ministry's activities were limited to prospecting for oil, natural gas, and mineral deposits, which it turned over to other ministries to produce. However, since 1990 the Ministry of Geology has had the authority to produce oil and natural gas from some of the fields it has explored. The Minister of Geology indicated that his Ministry has identified 67 fields available for production and will produce 3.5 million tons[7] of oil in 1991. The exploitation of these fields, however, is threatened by the absence of capital to initiate and maintain production. The Minister said that the investment needs for 1991 total about 1 billion rubles and that a major portion of this funding would need to come from sources outside of the Soviet government.

Some U.S. companies are already involved in or are negotiating joint ventures. For example, Anglo Suisse, a small oil company based in Houston, Texas, has begun a joint venture in Western Siberia to produce oil from fields already explored or exploited by the Soviets. Anglo Suisse projects that by using more sophisticated exploitation techniques it will be able to produce 300 barrels of oil per day where the Soviets are currently producing only 60 to 70 barrels per day.

Chevron Oil Company has been negotiating a joint venture with the Soviet government to explore and produce oil at the Tengiz oil field in Kazakhstan. The Tengiz field requires special equipment and technology not available in the Soviet Union to extract oil from reservoirs containing high levels of hydrogen sulfide, a toxic gas. In addition, MD SEIS,

[7]The 3.5 million tons of oil equal 25.6 million barrels of oil.

a U.S.-Soviet joint venture between Professional Geophysics, Inc., of Houston, Texas, and the Central Geophysical Expedition of the Soviet Ministry of Oil and Gas Industry, has been formed to provide geophysical services to the oil and gas exploration industry. The company is chartered to provide seismic data acquisition and data processing services to foreign oil companies working on Soviet and foreign territories.

Obstacles to U.S. Trade and Investment in Soviet Oil Exploration and Production

Both the Soviet Union and the United States maintain some policies and practices that inhibit trade and investment in Soviet oil exploration and production. The United States, for example, limits government-sponsored export credit guarantees and insurance from the U.S. Export-Import Bank. The Soviet Union's political uncertainty and lack of knowledge of western business practices constrain oil trade and investment. Also, the absence of a bilateral tax treaty between the two countries that would allow U.S. companies to repatriate joint venture profits without double taxation limits efforts to promote investment in Soviet oil production.

Progress is being made, however, on overcoming these obstacles. For example, some training programs in western business practices have already been developed by the U.S. government, private companies, and universities. Also, the U.S. and Soviet governments are in the process of negotiating a bilateral tax treaty.

U.S. Policies Restrict Trade and Investment in the Soviet Oil Sector

U.S. oil companies and petroleum equipment suppliers stated that two 1974 congressional amendments limit their ability to sell their goods and services to and invest in the exploration and production of oil in the Soviet Union. In December 1990 the President waived the Jackson-Vanik amendment, which had limited general trade with the Soviet Union;[1] however, other statutory restrictions—the Byrd amendment to the Trade Act of 1974, as amended, (19 U.S.C. 2487) and the Stevenson amendment to the Export-Import Bank Act of 1945, as amended, (12 U.S.C. 635e)--continue to specifically limit U.S. Export-Import Bank financing for energy-related activities involving the Soviet Union. Export-Import Bank officials believe they should be able to operate as freely with the Soviet Union as they do with other countries.

The Byrd and Stevenson amendments were enacted during a period when the Congress was concerned about (1) granting credit guarantees and insurance involving foreign production of energy when the United States needed capital and materials to develop energy at home and (2) subsidizing energy trade with the Soviet Union, a country considered to have a gross national product second only to that of the United States. It

[1]The Jackson-Vanik amendment of the Trade Act of 1974 provides that most-favored-nation treatment and government financial credit guarantees cannot be extended to any non-market-economy country that denies its citizens the right to emigrate. On December 12, 1990, the President waived the Jackson-Vanik amendment to allow provision of government financial credit guarantees for business in the Soviet Union.

was also a period when the political benefits to be derived from subsidizing trade with the Soviet Union were unclear, particularly given the concerns about Soviet emigration policy and movement toward strategic arms controls and mutual and balanced force reductions in Europe.

The Stevenson amendment prohibits the use of Export-Import Bank loans or financial guarantees to the Soviet Union for the purchase, lease, or procurement of any product or service that is used to produce fossil fuel energy resources. Export-Import Bank officials say that this restriction directly affects the ability of energy-related companies to conduct business in the Soviet Union. For example, since the waiver of the Jackson-Vanik amendment, an Export-Import Bank official reports that the bank has turned away an average of two export credit guarantee or insurance applications per week because of the Stevenson amendment's prohibition. One of these applications involved loan guarantees for the purchase of tank car heaters to transport petroleum from Siberia. This trade transaction, according to Export-Import Bank officials, was valued at about $17 million.

The Stevenson amendment also restricts the U.S. Export-Import Bank's financing for energy research and exploration projects to a total amount of $40 million. A U.S. Export-Import Bank official says that between December 12, 1990, the date of the Jackson-Vanik waiver, and March 15, 1991, two applications for Soviet research and development projects, worth $7.7 million, had been received and one had already been approved. Even though the $40-million ceiling has not been exceeded, the U.S. Export-Import Bank may not be able to provide additional guarantees because of other limitations in the Byrd and Stevenson amendments.

The Byrd amendment restricts the amount of service the Export-Import Bank can provide for operations in the Soviet Union, including operations in the energy sector, to an aggregate amount of $300 million. The Stevenson amendment also contains a similar overall restriction.[2] During the period December 12, 1990, to March 15, 1991, there was $838.3 million worth of applications from U.S. companies for credit guarantees from the Export-Import Bank, far exceeding the $300-million ceiling. Export-Import Bank officials believe that there should not be any country-specific ceilings set on Export-Import Bank operations.

[2]Under the Stevenson amendment, the $300-million ceiling can be increased if the President makes a determination that it is in the national interest to increase the ceiling and the Congress adopts a resolution of approval, whereas the Byrd amendment states that the ceiling can only be increased with congressional approval, as provided by law.

Political Conflicts Over Ownership of Oil Resources and the Legality of Agreements and Contracts

Other conditions also constrain U.S. investment in Soviet oil exploration and production, such as political conflicts among the Soviet central, republic, and local governments over who owns the oil resources, and consequent uncertainty about the legality of existing agreements and contracts.

According to U.S. embassy officials in Moscow, the current issue of whether there should be a strong centralized government, decentralized republican governments with a lesser role for central authorities, or independent republican governments with little or no central government participation has affected foreign involvement in Soviet oil production because each political entity has asserted its own sovereignty.

Ownership rights in the Soviet Union are not clear. Embassy officials report that the Soviet central, republic, and local governments are all claiming ownership of oil production rights. For example, the local authorities at oil production sites in Siberia say that they own the oil and should be given royalties for the production. Similarly, the Russian Republic is declaring that its laws regarding oil rights supersede the laws of the central government. All 15 Soviet republics are drafting their own constitutions, and each plans to decide how it will coordinate foreign investment.

Another difficulty involves the uncertainty over which level of government has the authority to approve joint ventures. Until recently, foreign companies had been required to go through the central government for permission to operate in the Soviet Union. Since January 1991 a new investment decree allows foreign companies to register their joint ventures directly with the republic governments. However, U.S. company officials are not sure who owns the rights to the oil and who has the authority to enter oil production or exploration joint venture agreements.

Several U.S. company officials noted that the uncertainty surrounding Soviet ownership and authority has increased the risk of investment in the Soviet Union. Some oil company officials whose companies are investing in joint ventures said they have signed contracts with various levels of government to protect their ownership in ventures.

The Soviet Minister of Geology recognizes that many U.S. company officials are concerned about the risks of their investments; consequently, he has devised a mechanism to address this problem. Essentially, the Minister of Geology suggests that western companies sign contracts with

three Soviet signatories: the Ministry of Geology, which provides the operational funds for the Soviet partner; the Director of the Enterprise, who is responsible for implementing the contract; and a representative of the Soviet district government that owns the land. According to the Minister of Geology, his Ministry has already used this method to form joint ventures with major oil companies. It remains to be seen whether or not this solution is sufficient.

In another attempt to resolve the problem, the Soviet central government has proposed an All-Union Treaty that would attempt to define the responsibilities and authorities of the central and republic governments. The most recent draft of this treaty, dated March 11, 1991, outlines the political structure for the Union, establishing the powers, ownership rights, taxes, and laws invested in the central and republic governments. For example, the treaty states that both the central government and the republics will share management of the fuel and energy system in the country. This treaty also notes that the republics own the land and natural resources within their territory except for those portions that are "contractually assigned to the Union for the exercise of the powers entrusted to it." On April 23, 1991, Soviet President Gorbachev and nine of the republic presidents, including the President of the Russian Republic, signed a pact that will set new parameters for the All-Union Treaty. More details on this treaty will be developed during the next year for approval by the republic and central governments.

On October 26, 1990, the Soviet Union adopted the "Presidential Decree on Foreign Investments in the U.S.S.R." that (1) establishes legal protection for foreign investments, with no less favorable conditions than those granted to Soviet organizations and citizens; (2) defines the subjects of foreign investments, including shares, securities, acquired property rights, and the rights to use land; (3) permits 100-percent foreign ownership of Soviet enterprises; and (4) allows for transfer abroad of Soviet currency earned on sales within the Soviet Union. Decrees are considered laws and are implemented by the central and republic governments.

Absence of Business Management Skills

U.S. company officials report that Soviets are not familiar with basic business terms and practices such as accounting, profit, or depreciation; thus, conducting business with them is very difficult. Efforts are being made to address this problem through company-approved business training programs, U.S. government-sponsored exchange programs, and U.S. university management development programs.

The Need for Business Training

For over 70 years the Soviet central government has managed the allocation of resources and the establishment of production and pricing targets. As a consequence, industry plant managers are not familiar with efficient production, price-setting, and cost-accounting techniques.

Practical business training programs are being developed but more are needed. An official at the Ukrainian Council of Ministers said management development is a key area of need in the Soviet Union, more critical than acquiring technology. He said that enterprise managers at oil and gas production sites have not been required to make production and marketing decisions themselves; instead, they are used to taking orders from above. Soviet officials in the Ministry of Geology also stated that management development and training are important to the Soviet transition to a free market economy and that one of the purposes in entering joint ventures is to obtain management expertise.

Selected U.S. oil company officials whose companies are establishing joint ventures in the Soviet Union agreed that business education is needed and stated that they will provide training to their Soviet joint venture partners. These business education programs are developed on a joint-venture-by-joint-venture basis and therefore only address the needs of the partners of a particular joint venture. They are not concerned with the overall need for business education in the Soviet society.

U.S. Government Efforts to Assist the Soviets

The U.S. Department of Commerce is co-chairing and participating in the U.S.-U.S.S.R. Joint Commercial Commission and coordinating a management internship program.

The Secretary of Commerce, along with the Soviet Minister of Foreign Economic Relations, co-chairs the U.S.-U.S.S.R. Joint Commercial Commission. The commission, established in 1972, is the government-to-government body through which trade and economic development issues are discussed and new trade development programs are proposed. For example, from March 21 through March 30, 1991, the commission's Working Group on Oil and Gas Equipment brought together U.S. and Soviet oil officials for educational discussions on U.S. oil exploration and production techniques and investment opportunities in the Soviet oil sector. In addition, in a November 1989 commission meeting, Commerce officials proposed the State to Oblast Initiative, a program of commercial cooperation between American states and Soviet regions that have complimentary industries. The first project under this initiative will be

an Alaskan and Tyumen oblast exchange in which a mission of U.S. officials from 35 to 40 Alaskan companies will work with Tyumen oil industry officials on oil and gas exploration, development, transportation, and processing under arctic conditions. This project is planned to begin in October 1991.

In September 1990 the Secretary of Commerce initiated the Soviet-American Business Intern Training Program, which provides mid- and senior-level business managers from the Soviet Union with firsthand experience working in a market economy through management internships in U.S. companies. These internships expose Soviet managers to American management practices in such areas as production, distribution, marketing, accounting, wholesaling, and publishing. A number of companies have already agreed to host interns, including several major oil companies.

Other U.S. government efforts are underway. In December 1989 the President initiated the U.S. Technical Economic Cooperation Program to familiarize the Soviets with the workings of a market economy. The Department of State is coordinating this program in cooperation with a number of government agencies and private companies. Under the program, industry sector experts provide advice through concrete projects, exchanges of experts, and seminars. A number of projects have already been completed. For example, the Department of Commerce and the Small Business Administration hosted a U.S. orientation tour for the Soviets on developing small business, and senior Soviet officials visited the New York Stock Exchange and U.S. regulatory officials to discuss financial markets.

U.S. Educational Institutions' Efforts to Assist the Soviets

Some U.S. educational institutions have also recognized the Soviets' need for practical business training programs that provide the critical skills required in a free market economy. Fordham University, for example, has entered into a joint venture with a Soviet institution of higher education to provide a training program in business administration to Soviet citizens. This program will have 1,000 students enrolled at a time. The program will be open to both U.S. and Soviet students, who will be able to study both in the United States and in the Soviet Union.

In addition, the Fuqua School of Business at Duke University offers a 3-week training course in business management to Soviet managers. Duke University trains about 100 Soviet students per year. Students apply through the following Soviet organizations: the U.S.S.R. Council of

Ministers-Academy of National Economy; the All-Union Academy for Foreign Trade; or the Institute of the U.S.A. and Canada within the Academy of Sciences of the U.S.S.R. Soviets can also apply if they are nominated by a U.S. corporation. Soviet students finance their own travel to the United States, and the university pays for their training, using private donations. Most recently, the university offered a management development program for Soviet managers from March 25 through April 14, 1991. This 3-week program included courses in finance, human resource management, and organizational design, as well as tours of U.S. firms and 3-day internships at various U.S. corporations.

Harvard University and the Soviet government jointly finance a program that selects Soviet students for and finances their training in business management at the Harvard Business School. The students are accepted into either the Masters in Business Administration program or the Program for Management Development. In September 1990 four Soviet students were accepted by the Harvard Business School.

Bilateral Tax Treaty

U.S. oil company officials told us that the lack of a provision in the 1975 U.S-U.S.S.R. Tax Treaty that would eliminate double taxation hinders U.S. investment in the Soviet Union. According to the U.S. Treasury Department, numerous taxes are imposed on Soviet joint ventures. Under the U.S.S.R. Law on Taxation of Enterprises, Associations, and Organizations, adopted in June 1990, five separate taxes are imposed on Soviet joint ventures.[3] The tax on income from investments enacted by this law subjects the foreign partner to a tax of 15 percent on the amount of joint venture profits repatriated. This tax is paid in the currency in which the profits are transferred out of the Soviet Union. In addition, taxes paid in the Soviet Union are not credited against taxes paid in the United States. The current U.S.-U.S.S.R. tax treaty does not contain a provision granting foreign tax credits or eliminating or reducing the Soviet profits repatriation tax.

The U.S. and Soviet governments have recognized the need for a bilateral tax treaty that addresses double taxation issues. The U.S. Treasury Department is currently negotiating a new bilateral tax treaty with the Soviet Union to avoid double taxation of profits and reciprocally reduce taxes paid on repatriation of dividends, royalties, and interest.

[3]Under this law, the five taxes that may be imposed on Soviet joint ventures are: (1) the profits tax, (2) the turnover tax, (3) the export and import tax, (4) the consumption tax, and (5) the tax on income from investments.

Matters for Congressional Consideration

In light of the changes in the Soviet Union since 1974, when the Stevenson and Byrd amendments were adopted, the Congress may wish to reconsider the continued need for these amendments. A decision to remove the legislative restrictions would not necessarily mean immediate U.S. loans and guarantees to the Soviet energy sector. The U.S. Export-Import Bank would, of course, still be expected to apply its standard procedures for assessing the risk of nonrepayment of loans, including country risk analysis, in determining whether loans and guarantees should be extended to the Soviet Union.

Major Contributors to This Report

National Security and International Affairs Division, Washington, D.C.

Elliott C. Smith, Assistant Director
Anthony L. Hill, Project Manager
Anne M. Pond, Deputy Project Manager
John D. Sawyer, Evaluator
Bruce Kutnick, Senior Economist

Ordering Information

The first five copies of each GAO report are free. Additional copies are $2 each. Orders should be sent to the following address, accompanied by a check or money order made out to the Superintendent of Documents, when necessary. Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

U.S. General Accounting Office
P.O. Box 6015
Gaithersburg, MD 20877

Orders may also be placed by calling (202) 275-6241.

United States
General Accounting Office
Washington, D.C. 20548

Official Business
Penalty for Private Use $300

First-Class Mail
Postage & Fees Paid
GAO
Permit No. G100