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EXPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS BY
THE SOVIET UNION

Note by the Chairman of the
Committee of Economic Advisers

The attached report has been elaborated by the Committee of Economic Advisers within the framework of its studies on Soviet oil exports. Based on a paper prepared by the Economic Directorate, it takes account of contributions and comments from various delegations.

2. The Committee has considered that the Council might be interested by the information contained in this report, which it may wish to note.

(Signed) F.D. GREGH

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EXPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS BY THE SOVIET UNION

Report by the Committee of Economic Advisers

A. Summary and Conclusions

Soyuznefteexport, the Soviet agency responsible for oil sales in the world market, recently declared that, after Jersey Standard and Royal Dutch-Shell, it exported more oil than any other company in the world. This claim is not justified by the development of Soviet sales since 1958, but it offers a clear enough indication of the Soviet leaders' intention to make their presence felt in the world oil market, and to dispose of their surplus production on the best possible terms.

2. During the last few years consumption of petroleum products in the European Zone of the OECD has grown substantially (at an annual average rate of 15% between 1959 and 1964); it will continue to increase during the second half of the present decade but at a slower pace (the annual average rate of growth between 1964 and 1970 has been estimated at 7.3%). As regards the expansion of Soviet sales in this part of the world, it has clearly slowed down since 1962; indeed the annual average rate of increase of these sales which was 17.4% between 1959 and 1964, fell to 8.8% between 1961 and 1964. On the basis of the forecasts contained in the present study, it does not seem that the growth of Soviet sales between 1966 and 1970 will be such as to bring them to a level where they might create too great a dependence - a dangerous one therefore - of this area upon the USSR. This conclusion emerges from the comparison of the Soviet export figure for 1964 and that of the estimate for 1970 which shows an annual average rate of growth of 6.2% for the whole period, a percentage which is lower than that of the growth rate of consumption during the same time. These exports (27 million tons) will probably represent only 5.6% of the total consumption of OECD/Europe (481 million tons), slightly less than the percentage obtained for 1964 (6%)(1).

3. Soviet sales of oil to the rest of the Free World, in particular the uncommitted countries, seem likely to grow considerably during the next few years. The greatest effort will probably be made in the direction of the developing countries where the volume of sales could increase from 8 million tons in 1965 to 12 million tons, and even 25 million tons, in 1970. This latter figure, equivalent to more than 3 times the level of exports in 1965 could only be achieved at the price of big concessions to the buyers (barter deals, credits, payment in non-convertible currencies) made with a view to squeezing out traditional suppliers.

(1) Total consumption figures have been taken from OECD Oil Statistics 1964 (Supply and Demand) and from the Report by the OECD Special Committee for Oil entitled "Oil to-day-1964". Total consumption, which amounted to 314.8 million tons in 1964, has been assessed, for 1970, on a conservative basis at about 481 million tons.

Indeed, the rate of economic growth in most of the uncommitted countries being rather low, such a large increase in Soviet sales seems unlikely to result from any proportional increase in demand, and therefore could only be achieved as a result of changes in the geographical distribution of fuel imports in these countries.

B. Recent developments

4. Whereas in many sectors of its economy the Soviet Union has not succeeded in reaching the goals of the Seven-Year Plan, 1959-65, in the field of crude oil production results have been equal to, and even exceeded, expectations. Production has risen from 113 million tons in 1958 to 243 million tons in 1965, growing at an annual average rate of about 11.6%. During the same period, exports of crude oil and petroleum products made considerable strides, increasing from 18.1 million tons in 1958 to 56.6 million tons in 1964. Their volume in 1965 is not yet known; most recent estimates seem to indicate that they might have totalled some 63 million tons. Their annual average rate of growth - much higher than that of production - during the period covered by the Seven-Year Plan would therefore be about 19.5%.

5. Table A at annex indicates the development of Soviet sales to the various importing areas during the period 1958-1965. With the exception of those for 1965, all figures have been drawn from the trade returns of the USSR (1). They may differ slightly from those of the OECD or of other Western sources. However, the discrepancies stemming from the use of different methods and rules of statistical compilation are not such as to invalidate them. Figures for 1965 are estimates based on Western sources. Sales to the European Zone of the OECD (2), have grown more than four-fold in seven years, from 4.4 to about 19 million tons in 1965. Their annual average rate of growth which was very high at the beginning of the period under examination, slowed down considerably in 1964 (1.7%). For 1965, provisional estimates show that sales have practically remained at their previous year level. Table B at annex shows how the share of imports of Soviet origin in the total imports of the European Zone of the OECD has diminished; it fell from 6.5% in 1961 to 5.7% in 1964 and should decline further in 1965. This development is the opposite of that of Soviet exports to the other areas of the Free World, the increase of which in 1964 and in 1965 was remarkable.

6. Soviet sales of oil to the developing countries are subject to wide fluctuations; their growth, however, has been striking, in particular in 1964 and in 1965, as a result of efforts by the USSR to establish itself commercially in these countries. Some of the sales, notably those to Syria, Guinea, Yemen and Egypt are linked to political agreements. In the case of countries suffering from a scarcity of convertible currencies - Brazil, Uruguay, Argentina, India, Ceylon, Burma - these exports are generally the result of barter agreements.

(1) These official data are published at regular intervals by the Petroleum Press Service which has been used as the source of reference.

(2) i.e. all Western Europe with the exception of Finland and Yugoslavia.

7. Recent developments seem to indicate that during the next few years, the main expansion of Soviet oil exports will be in countries outside the European zone of the OECD, in particular in the non-committed countries and Japan. The latter, industrialized but deficient in energy resources, lies near the oilfields of Sakhaline and of Eastern Siberia. The USSR is therefore well placed to offer the Japanese commercial agreements entailing the exchange of crude oil, natural gas or petroleum products for industrial installations and pipelines. While Soviet oil sales have not so far been limited by a lack of large capacity tankers, the USSR might improve its competitive position in the developing countries through the expansion of its tanker fleet(1). Indeed, these countries, which are often short of hard currencies, could hardly fail to be attracted by the possibility of procuring oil, for which all costs including freight, could be paid for in local products or non-convertible currency. In addition, certain developing countries, for reasons which may have little basis in sound economic management, insist on having their own refineries where they can process crude oil of their choice; these refineries constitute a potential outlet which the Soviets are seeking to exploit. An additional means of promoting Soviet sales is to be found in the agreements which the Soviet Union has concluded with certain developing countries. These agreements provide for aid (by the grant of credits) and co-operation in prospecting for, producing and refining crude oil. There are technicians from Communist countries working on such projects in Afghanistan, Burma, Cambodia, Ceylon, India, Pakistan, Iran and Egypt. Finally, Finland and Yugoslavia will probably continue to buy large quantities of oil from the Soviet Union.

C. Future prospects

8. The question arises as to the extent to which the Soviet Union will be able to develop its exports during the period 1966-1970. The volume of oil which might be exported depends both on the available surplus and on the existence of sufficient outlets. Any forecast in this respect is hazardous, the more so as Soviet statistics give no information on the consumption of petroleum products by the various sectors of the economy. Nevertheless, by taking into account the production of crude oil, Soviet exports and imports of oil, a very approximate figure of total internal demand (including refineries' own consumption and losses) may be deduced for 1965.

Production	:	243	million tons
Imports	:	2	" "
Total available	:	<u>245</u>	" "
Less exports	:	<u>62-64</u>	" "
Internal demand	:	<u>183-181</u>	" "

(1) The Soviets hoped to be able to carry in 1965 the largest share of their oil exports in Soviet bottoms. In fact, Russian tankers carried about 61% of such exports in 1965, against 55% in 1964.

In a very comprehensive study of the Soviet petroleum industry published in March 1964, the National Petroleum Council of the United States has assessed the rate of growth of total consumption in the USSR at 7% a year, between 1965 and 1970. If this percentage is accepted as a working hypothesis, total consumption (including losses and refineries own consumption) would reach 254-257 million tons in 1970. In this latter year, according to the Five-Year Plan, production of crude oil should be of 345-355 million tons, to which should be added about a million tons of petroleum products imported from Rumania. In 1970, the balance available for exports would, therefore, be of about 89 to 102 million tons (crude oil and petroleum products).

9. Many factors, examined in the following sub-paragraphs might, however, by affecting either crude oil production or the level of internal demand, reduce the quantity available for export:

(i) Annual average rates of growth of coal and natural gas production lower than those scheduled in the Five-Year Plan 1966-1970. During the Seven-Year Plan 1959-1965, numerous difficulties hampered coal production (the new deposits are in Siberia where it is difficult to attract labour) as well as that of natural gas (lack of large diameter pipelines and of compressors). A worsening of operational or transport problems could create bottlenecks in the primary energy sector, which might be hard to break without drawing on the supplies of crude oil destined in principle for export.

(ii) A steep increase of primary energy consumption. Assuming that production of primary energy would go up by an average of 6.5% a year between 1966 and 1970, that 11% of production was exported in 1965 (AC/89-WP/189, paragraph 13) and that 13% of it would be in 1970 (National Petroleum Council estimate), internal consumption should increase by about 6% a year between these two dates. This percentage seems somewhat low in relation to the yearly average growth rate of 8.2%, forecast for industrial production, and to the efforts being made by the Soviets to accelerate the electrification of the countryside, to substantially increase the number of lorries, tractors and agricultural machines and lastly, to raise the standards of living of the population by increasing, in particular, the supply of durable consumer goods (household goods, motor-cars, etc.) and by improving housing conditions. The implementation of all these projects should - towards the end of the sixties - lead to a substantial increase in the consumption of primary energy (notably natural gas and petroleum) to the benefit of the agricultural sector and the household consumer, but at the expense of the exportable surplus.

- (iii) Delays in the development of oilfields recently discovered. The USSR suffers from a shortage of industrial equipments needed to produce, transport and refine crude oil in increasingly complex conditions as production and the range of needs grow. The obligation to develop concurrently the chemical industry, the petrochemical industry and the agricultural sector could confront the Soviet planners with a problem in determining the correct priority to be observed in allocating the resources available for investment purposes.

10. The repercussion of these various factors on the quantity of oil available for export in 1970 cannot be calculated at the present stage of implementation of the Five-Year Plan, 1966-1970; consequently, the estimate arrived at in paragraph 8, i.e. 89 to 102 million tons, remains unchanged. It is however reasonable to suppose that the level of total Soviet exports will approach the lower figure of this range. A sizeable part of the Soviet sales will be directed toward the Communist countries of Eastern Europe which will be increasingly dependent on imported energy supplies during the next five years. Rumania will be the only exception and will continue to export petroleum products(1).

11. On the basis of various estimates of Eastern European countries' energy requirements and imports, USSR sales of crude oil and petroleum products to these countries are likely to reach a minimum of 32 million tons by 1970. The annual average rate of growth between 1965 and 1970 would be 8.08%. If this percentage were applied to the five-year period 1966-70, aggregate Eastern European imports from the Soviet Union would amount to 138 million tons; this figure would be 7.8 million tons below the planned Soviet exports (145.8 million tons) as

(1) According to the National Petroleum Council, in 1970, Rumanian exports will be shared out as follows:

USSR	:	1 million tons
Eastern Europe	:	0.5 million tons
Free World	:	4 million tons
TOTAL	:	5.5 million tons.

forecast in trade agreements for that period(1). In addition, the Soviet Union will probably have to continue its shipments to Cuba (5 million tons) and to the Far-Eastern Communist countries, with the likely exception of Communist China, (1 million tons). This gives a total of 38 million tons for all the Communist countries - i.e. 13.6 million tons more than in 1964, the last year for which official data are available (the annual average rate of growth between 1964 and 1970 would be 7.7%). The available balance which could fluctuate between 51 and 64 million tons would be exported to the Free World.

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- (1) In 1966-70, large increases in Soviet deliveries of crude oil and petroleum products are scheduled to the Eastern European countries. Planned Soviet exports are about 133 million tons of crude oil, almost 2½ times the level projected for 1961-65. These can be estimated for 1966-70 on the basis of Soviet/Eastern European countries' trade agreements for that period. Of this figure, 39 million metric tons of crude oil are scheduled for Czechoslovakia (as compared to 22 million tons in the preceding five years); 15.7 million tons of crude oil to Bulgaria (2.6 million tons were delivered 1961-64); and 6 million tons of petroleum products (5.63 million for 1961-64). In the case of Hungary, crude oil deliveries are set at 16 million tons, compared to 6.6 million tons 1961-65.

For Poland, the 1966-70 trade agreement shows large planned increases for crude oil; i.e. 26 million tons as against 8.5 million tons under the previous agreement (actual deliveries were 4.9 million tons). Some cuts in oil products are apparently envisaged as a result of greater Polish refining capacity. 7.1 million tons are forecast, whereas 1961-64 deliveries of refined products were 7.9 million tons.

Despite the USSR/Soviet Zone of Germany difficulties re their bilateral trade agreement, crude oil exports are listed at 36 million tons, as opposed to 15.6 million tons in the previous agreement.

In sum, in the fuel and energy section where East European dependence on the Soviet Union has been most notable, large increases in Soviet delivery are scheduled, if repeat if, the 1966-70 trade agreements are to be fulfilled.

D. Sales to the Free World

12. The long-term trade agreements concluded between certain NATO countries and the USSR give an idea of the level which might be reached by Soviet exports of crude oil and petroleum products to the European Zone of the OECD. The trade agreement between Italy and the USSR provides for Russian sales which would increase from 7.9 million tons in 1966 to 10.1 million tons in 1969; during the same period, France will buy 2.8 million tons a year. The protocol for 1965 annexed to the long-term trade agreement (1965-1969) between Greece and the USSR provides for Soviet exports of 1.25 million tons. The trade agreement with Norway provides that the latter will import 400,000 tons of petroleum products in 1966 and 450,000 tons in 1967; the one with Denmark mentions yearly sales of 500,000 tons of petroleum products until 1969. If all these figures, slightly increased, were considered as representing the Soviet sales to these countries in 1970, they would reach some 17 million tons. Sales to other European countries belonging to the OECD, in particular Germany, Sweden, Austria and Iceland, might add up to 10 million tons. In this case, total Russian exports to the European Zone of the OECD would be about 27 million tons: i.e. an increase of 8.2 million tons over the 1964 figure which would imply an annual average rate of growth of 6.2% between 1964 and 1970. This export figure is based on a prudent assessment of the opportunities which the Soviets would have to broaden their outlets in the area. In the first place, their sales in Western Europe come up against the competition of oil imported from the Middle East, North Africa and Nigeria; and, in the second place, against the understandable refusal of the large petroleum companies to process Soviet crude oil in their refineries or to sell Soviet petroleum products through their marketing networks. Therefore, Soviet efforts will be directed towards: (a) those countries where the State directly or indirectly owns refineries, a commercial organization or the legal means of compelling private companies within its boundaries to purchase Soviet oil, (b) those countries where a number of small private firms are competing with the large oil companies and (c) the State-owned enterprises of Western Europe which are large consumers of fuel (railways, gas and electric power plants, shipping companies).

13. Purchases of Soviet crude oil and petroleum products by Finland, Yugoslavia, Japan, together, which have been estimated at 8.8 million tons for 1965, might well reach 12 million tons in 1970. The Soviet-Japanese trade agreement for 1966-1970 provides for Japanese purchases of at least 4 to 5 million tons a year; this figure could be increased when, in accordance with the terms of the agreement, the yearly readjustment of the trade flow between the two countries takes place. In addition, if the Japanese agreed to participate in the joint development of the oilfields of Irkutsk and Nahodka in Eastern Siberia, Russian exports to Japan would substantially increase.

14. After allowing for exports to Western Europe and Japan, the residue of Soviet oil available for export to the developing countries in 1970 would amount to between 12 and 25 million tons. The Soviet planners, while not neglecting an opportunity to increase their sales to the industrialized countries, are likely to concentrate their attention on the markets provided by the developing nations, where the big oil companies are sometimes more vulnerable, and subject to all kinds of pressures from the local authorities.

E. Petroleum imports by Communist countries

15. A new development has come to the fore which might have serious implications if it became widespread. The USSR and the Eastern European countries are gradually becoming importers of petroleum and of natural gas from the Free World. Rumania has concluded a ten-year agreement with Iran involving the purchase of crude oil to a value of \$100 million, Czechoslovakia has allegedly lent \$15 million to Iran, part of which would be reimbursable in crude oil. The Soviet-occupied Zone, Poland, Hungary, and Bulgaria have indicated that they might be interested by purchases of oil in Iran and elsewhere in the Free World. The USSR buys natural gas in Afghanistan; and, starting in 1970, Iran will deliver to it large quantities of this fuel. It is very unlikely that these still modest purchases will have any repercussions on the level of Soviet oil exports during the period 1966-1970. As regards the Eastern European countries, various different, although not mutually exclusive, interpretations of their quest for new sources of supply may be advanced: the wish to find cheaper oil than that supplied by the USSR, the fear that the latter's supplies might not increase at the same rate as their own energy needs; attempts to find new outlets for their industrial products by exchanging them for oil; commercial transactions entered into in consultation with the USSR with a view to furthering Communist propaganda in certain areas of the Persian Gulf. The agreement reached by the Soviet Union with the National Iranian Oil Company may have given rise to hopes in certain oil producing countries that their nationally owned companies, often of recent inception, might also find in the Communist countries outlets or intermediaries which would enable them to dispose of their oil.

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EXPORTS OF CRUDE OIL AND OF PETROLEUM PRODUCTS BY THE USSR

TABLE "A"

1958-1965 and 1970

Year	OECDEurope		Other Western European countries(1)		Japan		Rest of the Free World		Eastern Europe		Cuba		Far-Eastern Communist countries		TOTAL	
	1,000 m.t.	% change over previous year	1,000 m.t.	% change over previous year	1,000 m.t.	% change over previous year	1,000 m.t.	% change over previous year	1,000 m.t.	% change over previous year	1,000 m.t.	% change over previous year	1,000 m.t.	% change over previous year	1,000 m.t.	% change over previous year
1958	4,429.3	-	1,626.5	-	11.1	-	3,481.9	-	5,744.9	-	-	-	2,844.3	-	18,138.0	-
1959	8,441.1	90.6	2,303.5	41.6	155.1	1,297.3	3,609.4	3.7	7,378.0	28.4	-	-	3,484.9	22.5	25,372.0	39.9
1960	12,336.8	46.2	2,584.3	12.2	1,403.6	805.0	2,149.6	-40.4	9,205.9	24.8	-	-	3,372.7	-3.2	33,217.7	30.9
1961	14,607.2	18.4	2,200.4	-14.8	3,042.7	116.8	3,071.1	42.9	10,780.7	17.1	4,028.6	66.1	3,487.4	3.4	41,218.1	24.1
1962	16,129.9	10.4	3,379.4	53.6	2,979.2	-2.1	2,671.7	-13.0	13,293.3	23.3	4,384.4	8.8	2,545.8	-27.0	45,383.7	10.1
1963	18,458.2	14.4	4,190.2	24.0	3,086.7	3.6	3,385.8	26.7	15,912.5	19.7	4,219.9	-3.8	2,128.7	-16.4	51,382.0	13.2
1964	18,778.0	1.7	5,048.4	20.5	3,589.3	16.3	4,759.6	40.6	18,642.8	17.2	4,559.3	8.0	1,243.4	-41.6	56,620.8	10.2
1965(2)	18,800.0	0.1	5,100.0	1.0	3,700.0	3.1	7,900.0	66.0	21,700.0	16.4	4,700.0	3.1	900.0	-27.6	62,800.0	10.9
1970(3)	27,000.0	43.6	6,800.0	33.3	5,200.0	70.5	12 to 25,000.0	51.9 to 216.5	32,000.0	47.5	5,000.0	6.4	1,000.0	11.1	89 to 102,000.0	41.7 to 62.4

m.t. = metric tons

(1) Finland and Yugoslavia.

(2) Recent estimates furnished by the American Authorities (AC/127-WP/131/1).

(3) International Secretariat estimates and percentage increase over 1965.

Source: 1958-1964: Trade returns of the USSR as published by the Petroleum Press Service.

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TABLE "B"

IMPORTS OF CRUDE OIL AND OF PETROLEUM PRODUCTS BY
THE EUROPEAN ZONE OF OECD - 1958-1964

	Total imports (1) million tons	% increase over previous year	Imports from USSR (2) million tons	% increase over previous year	Share of imports from USSR in total imports
1958	146.1 (152.9)	-	4.4	-	3.0%(2.9%)
1959	176.5	20.8(15.4)	8.4	90.6	4.8%
1960	202.6	14.8	12.3	46.2	6.1%
1961	225.8	11.5	14.6	18.4	6.5%
1962	259.2	14.8	16.1	10.4	6.2%
1963	299.5	15.5	18.5	14.4	6.2%
1964	331.4	10.7	18.8	1.7	5.7%

Sources: (1) 1958 - Two figures are given for this year : the first taken from a study by the OECD Committee for Oil, entitled "Oil, new developments in the OECD Zone" - 1960, does not include Spanish imports. The second, shown between brackets, takes into account such imports (including those going to the Canary Islands) estimated by the OECD at 6.8 million tons.

1959 - Study by the OECD Special Committee for Oil entitled "Oil Today - 1964".

1960-64 - Oil Statistics (Supply and Disposal) compiled by the OECD Special Committee for Oil.

(2) Trade returns of the USSR. Import figures have been rounded up ; however, percentages of growth have been drawn from Table A.