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"THE SOVIET OIL EXPORT DRIVE AND ITS IMPACT ON THE MIDDLE EAST OIL"

By

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In partial fulfilment towards a
Master's Degree in Business Adminis-
tration at the American University
of Beirut.

May 18, 1964

P R E F A C E

The Russian oil has been a controversial subject ever since it launched its current export drive in 1955.

For the last two years I have been gathering from different sources the necessary data to answer a number of questions to provide an insight to this complex issue. The present Study is the outcome of this modest endeavor.

Chapter One of this Study attempts to build up a background on the Soviet oil export drive; Chapters Two and Three analyze the USSR's oil export capabilities; Chapter Four discusses the Soviet's objectives behind this drive; Chapter Five examines the possible impact of this Soviet drive on the Middle East oil, while Chapter Six provides a searching look for possible measures to curb this drive. These are followed by my own conclusions and the bibliography.

The preparation of this Study has been made possible by: (a) the invaluable references of Tapline's Oil Economics Library; (b) my wife's giving up, unselfishly and generously, hundreds of hours of my time, which would have been allocated to her company had it not been for this Study; (c) our 3-year old daughter, whose unusual unnaughtiness, gave me time to think and meditate; and (d) the typing assistance extended by Miss May Rebeiz, Mr. Georges Hanna, and Mr. Nabeel Haddad.

Atef Jubayli

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CHAPTER ONE

INTRODUCTION

THE SOVIET OIL EXPORT DRIVE

A- A GENERAL BACKGROUND:

The Russian oil export drive which began in 1955 has played a significant role in the international oil market and has become one of the most controversial subjects in the oil business. The big question has always been whether these exports ought to be considered in economic or political terms and whether they do have any impact on the oil industry in general, and on the oil from the Middle East, in particular.

Prior to this latest drive however, the Russians had launched at least two others in the history of the oil industry: the first one was in the first twenty years or so of world oil trade, but its importance diminished before the first world war. The second drive manifested itself between the two world wars and Russian exports reached a peak of 120,000 barrels a day in 1932 (or about 6 million tons/year).

The Russian domestic demand for oil products, as a result of their first five-year plan in 1928-32, reduced sharply their exports of petroleum within a year of the peak in 1932. Thereafter, and until the second world war, the Russians began to withdraw from the international market, and to sell the marketing facilities which they had built to Western Companies.

In October, 1960, and during the second Arab Petroleum Congress in Beirut, Mr. E. P. Gurov, chairman of the Russian oil export organization, "The Sojuzneft-export", claimed that during the years 1925-35, Russia supplied 14.3% of all the oil imported by Western Countries, and that during the peak years of 1930-32, this share went even higher to reach 19% of these countries imports. He claimed further, that about 14% of the USSR's production was exported during the thirties and that its peak export reached about 30% of its annual oil production.

He also said that the USSR intended to recover that portion of the European trade it had held prior to world war II (1).

As its production began to develop faster than its internal demand, after world war II, the USSR started feeling its way once again into the outside world. The major part of these first exports however, found its way to the Soviet Bloc Countries, leaving only about 4,000 out of a total 22,000 barrels a day see their way to the rest of the world. In 1955, exports to the Soviet Bloc and the non-Soviet Countries were about equal in volume, each accounting for 3.3 million tons. (see table I-A)

Table I-A indicates that total of USSR oil exports grew from 18.1 million tons/year in 1958 (the year before the current 7-year plan) to 45.4 millions in 1962. This growth in volume was also coupled with a growth in proportion versus the USSR's annual production. In 1958, for example, the oil exports accounted for 16.2% of total production while they accounted for 24.8% in 1962, although production increased from 112 million tons/year in 1958 to 183 million in 1962.⁽²⁾ The USSR's oil exports are geared for 51.0 million tons/year in 1965, which is expected to equal 22.2% of its production estimate for that year.⁽³⁾

B- WHO GETS RUSSIAN OIL?

Taken by areas, Western Europe has been by far the greater recipient of the USSR's oil exports to the Non-Soviet world.

In 1958, Western Europe imported 6.1 million tons of the 9.6 million exported by the Russian to the Non-Soviet world. This amount grew to 19.5 million in 1962 or from 63.5% to 65.9%, respectively.

The Soviet Countries (Cuba excluded), on the other hand, imported 8.5 and 15.8 million tons for the years in question. These represented

(1) "Soviet Oil in the Cold War" A study prepared by the Library of the USA Congress - Washington, 1961, P.8

(2) See Table I-B

(3) This will be discussed at length later in the following chapter.

Table I-A

USSR OIL EXPORTS (CRUDE OIL AND REFINED PRODUCTS COMBINED), 1955 - 1963,
BY COUNTRY OF DESTINATION

(in millions of Metric Tons (T) per year)

Destination	Millions of T/year								
	1955	1956	1957	1958	1959	1960	1961	1962	1963
TOTAL	8.0	10.1	13.7	18.1	25.4	33.2	41.2	45.4	
Soviet Bloc (*)	3.3	4.9	7.2	8.5	10.8	12.5	14.3	15.8	
Eastern Europe	2.2	2.9	5.0	5.7	7.3	9.2	10.9	13.3	
Czechoslovakia	(0.5)	(0.8)	(1.3)	(1.5)	(1.9)	(2.6)	(3.2)	(4.0)	
East Germany	(0.7)	(0.7)	(1.0)	(1.1)	(1.8)	(2.2)	(2.6)	(2.9)	
Hungary	(0.2)	(0.3)	(1.0)	(1.1)	(1.3)	(1.5)	(1.5)	(1.7)	
Poland	(0.7)	(0.9)	(1.3)	(1.5)	(1.9)	(2.1)	(2.4)	(3.0)	
Bulgaria	-	-	-	-	-	(0.8)	(1.1)	(1.6)	
Other	(0.1)	(0.2)	(0.4)	(0.5)	(0.5)	(-)	(0.1)	(0.1)	
Far East	1.1	2.0	2.1	2.8	3.5	3.3	3.4	2.5	
China	(1.0)	(1.7)	(1.8)	(2.5)	(3.1)	(3.0)	(2.9)	(1.9)	
Other	(0.1)	(0.3)	(0.3)	(0.3)	(0.4)	(0.3)	(0.5)	(0.6)	
Non-Soviet world	3.3	5.1	6.1	9.6	14.5	20.6	26.8	29.6	
Western Hemisphere	0.0	0.0	-	1.1	1.1	2.3	4.4	4.6	
Argentina	(-)	(-)	(-)	(0.9)	(0.5)	(-)	(-)	(-)	
Cuba	(-)	(-)	(-)	(-)	(-)	(2.2)	(4.0)	(4.4)	
Uruguay	(0-0)	(0-0)	(-)	(0.2)	(0.5)	(0-0)	(0-0)	(-)	
Brazil	(-)	(-)	(-)	(-)	(-)	(0.1)	(0.4)	(0.2)	
Other	(-)	(-)	(-)	(-)	(0.1)	(-)	(-)	(-)	
Western Europe	2.5	3.7	4.7	6.1	10.7	14.9	16.8	19.5	
Austria	(0.0)	(0.0)	(0.0)	(0.1)	(0.5)	(0.6)	(0.5)	(0.4)	
France	(0.3)	(0.4)	(0.6)	(0.7)	(0.8)	(0.8)	(0.7)	(0.8)	
Greece	(0.1)	(0.2)	(0.3)	(0.4)	(0.4)	(0.9)	(1.0)	(0.8)	
West Germany	(0.0)	(0.1)	(0.7)	(0.6)	(1.1)	(2.0)	(2.7)	(3.0)	
Iceland	(0.3)	(0.3)	(0.3)	(0.3)	(0.4)	(0.3)	(0.3)	(0.3)	
Italy	(0.2)	(0.5)	(0.5)	(1.1)	(3.0)	(4.7)	(6.2)	(7.1)	
Sweden	(0.7)	(0.7)	(0.5)	(0.9)	(1.4)	(2.0)	(2.4)	(2.6)	
Finland	(0.6)	(1.0)	(1.0)	(1.2)	(1.9)	(2.1)	(2.0)	(2.9)	
Yugoslavia	(0.2)	(0.3)	(0.4)	(0.4)	(0.4)	(0.5)	(0.2)	(0.5)	
Other	(0.1)	(0.2)	(0.4)	(0.4)	(0.8)	(1.0)	(0.8)	(1.1)	
Other E. Hemisphere	0.8	1.4	1.4	2.4	2.7	3.4	5.6	5.6	
United Arab Republic	(0.3)	(0.9)	(1.1)	(2.1)	(2.0)	(1.3)	(1.8)	(1.3)	
Syria	(-)	(-)	(-)	(-)	(0.4)	(0.3)	(0.2)	(-)	
India	(-)	(-)	(-)	(-)	(-)	(0-0)	(0.2)	(0.5)	
Japan	(-)	(-)	(-)	(-)	(0.4)	(1.4)	(3.0)	(3.0)	
Israel	(0.5)	(0.4)	(-)	(-)	(-)	(-)	(-)	(-)	
Other	(0.0)	(0.1)	(0.3)	(0.3)	(0.3)	(0.4)	(0.4)	(0.8)	
Unaccounted	1.4	0.1	0.4	0.0	0.1	0.1	0.1	(0.0)	

- Sources: 1955: Foreign Trade of the USSR in 1956
(in Russian), Moscow, 1958.
- 1956, 1957: Foreign Trade of the USSR in 1957
(in Russian), Moscow, 1958.
- 1958, 1959: Foreign Trade of the USSR in 1959
(in Russian), Moscow, 1960; see also:
Petroleum Press Service, September 1960,
p. 329; and Theodore Shabad, Russia's
Potential in Future World Markets,
paper presented to American Petroleum
Institute, Chicago, November 10, 1959,
mimeo., p. A-9.
- 1960, 1961: Petroleum Press Service, Dec. 1961,
p. 466 & Oct., 1962, p.389.
- 1962 ibid, October, 1963, p. 367

Notes:

- Conversion ratio: $T/\text{year} \times 0.02 = \text{bbls}/\text{day}$.
- 0.0 Less than 0.05.
- Zero.
- () Figures in parentheses add to give unbracketed
figure immediately above.
- (*) Cuba is included under the Non-Soviet World.

Compiled by: AJ

TABLE I-B

THE USSR'S OIL EXPORT VERSUS ITS OIL PRODUCTION, 1955 - 1962
(In Million Tons/Year)

<u>YEAR</u>	<u>PRODUCTION</u>	<u>% CHANGE OVER PREVIOUS YEAR</u>	<u>EXPORTS</u>	<u>% CHANGE OVER PREVIOUS YEAR</u>	<u>% OF EXPORT TO PRODUCTION</u>
1955	69	+16.9%	8.0	-----	11.2%
1956	83	+20.3	10.1	+26.2%	12.2
1957	96	+15.7	13.7	+35.6	14.3
1958	112	+16.6	18.1	+32.2	16.2
1959	128	+14.3	25.4	+40.3	19.8
1960	146	+14.1	33.2	+30.7	22.7
1961	165	+13.0	41.2	+24.1	25.0
1962	183	+10.9	45.4	+10.2	24.8

SOURCES: PRODUCTION: Same as in Table II-A

EXPORTS: Same as in Table I-A

TABLE I-B

THE USSR'S OIL EXPORT VERSUS ITS OIL PRODUCTION, 1955 - 1962
(In Million Tons/Year)

<u>YEAR</u>	<u>PRODUCTION</u>	<u>% CHANGE OVER PREVIOUS YEAR</u>	<u>EXPORTS</u>	<u>% CHANGE OVER PREVIOUS YEAR</u>	<u>% OF EXPORT TO PRODUCTION</u>
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1960	146	+14.1	33.2	+30.7	22.7
1961	165	+13.0	41.2	+24.1	25.0
1962	183	+10.9	45.4	+10.2	24.8

SOURCES: PRODUCTION: Same as in Table II-A

EXPORTS: Same as in Table I-A

4.7% and 34.8%, respectively of the total USSR's exports. So, although the oil exports to Communist Europe increased in volume they diminished in proportion.

Italy, followed by Western Germany, has been for several years the largest importer of Russian oil, and the recent Russo-Italian trade agreement⁽⁴⁾ calls for the import of 25 million tons of Russian oil between 1964-70. As indicated in Table I-C, Russian oil accounted for 20.4% of all Italian imports while the proportion in West Germany was about 6%. The EEC Commission considers 10% to be the maximum consistent with maintenance of national security⁽⁵⁾. Two relatively smaller countries Finland and Iceland - depend on Russian supplies for the great bulk of their imports. Sweden depends on this source for nearly one fifth of its imports, and Greece for nearly 30%. Austria and Yugoslavia are mainly supplied from their indigenous oil fields, but their supplementary supplies come largely from the Soviet Bloc and mainly from Russia. Russian oil exports to France are expected to rise⁽⁶⁾.

Outside Europe, Japan is now the Non-Soviet area's largest importer of Russian oil. Russian oil exports to Japan in 1963 are expected to have exceeded the level of 3.0 million tons established in 1961 and maintained in 1962. The Current trade agreement foresaw deliveries of 3.5 million tons during 1963, but they amounted to 3.3 million. The new trade Russo-Japan pact provides for increasing this year's deliveries to 3.7 millions, apparently to balance 1963's shortfall.⁽⁷⁾

Russian oil deliveries of crude and products to developing countries (excluding Cuba) are supposed to have increased modestly to 3.5 million tons in 1963 but they would remain somewhat below the peak of 1958-59. The two main importer countries in this category five years ago, have since reached a high degree of self-sufficiency; one of them - Argentina - ceased buying Russian oil as long ago as 1960 while the other - Egypt - has gradually reduced its purchases.⁽⁸⁾

(4) Petroleum Intelligence Weekly, N.Y. Nov. 1963, P.7

(5) The Oil and Gas Journal, Tulsa, U.S.A. Aug. 12, 1962, P.95

(6) The Economist, London, Jan. 25, 1964, P.330

(7) Platt's Price Service, New York, Feb. 13, 1964

(8) Petroleum Intelligence Weekly, N. Y. Sept. 23, 1963, P.3

TABLE I-C

ESTIMATED PERCENTAGE SHARE OF OIL IMPORTS FROM USSR OF
TOTAL LOCAL DEMAND, FOR SELECTED COUNTRIES - 1962

<u>COUNTRY</u>	<u>% OF LOCAL DEMAND</u>
Italy	20.4% (1)
West Germany	6.0 (1)
France	3.4 (2)
Belgium & Luxembourg	3.8 (1)
Netherlands	.3 (1)
Greece	30.0 (3)
Iceland	95.0 (4)
Japan	5.7 (5)
Finland	89.0 (6)
Sweden	20.2 (7)
Austria	21.0 (8)

-
- (1) The Oil & Gas Journal, New York, Sept. 16, 1963 - P.84
 - (2) Platt's, New York, Jan. 23, 1964
 - (3) Petroleum Intelligence Weekly, New York, July 22, 1963 - P.6
 - (4) Ibid - Sept. 16, 1963 - P.8
 - (5) Ibid - Feb. 11, 1963 - P.8
 - (6) Ibid - July 7, 1963 - P.8
 - (7) Ibid - Oct. 7, 1963 - P.7
 - (8) Ibid - Feb. 4, 1963 - P.7

The decrease in the imports of these two countries has been picked up, however, by oil deliveries to Brazil, India and Ceylon.

The current trade agreement of the USSR with Brazil foresees a further substantial increases in oil deliveries - to about 1.5 million tons in 1964, and to two million tons in 1965. (8)

Russia's oil shipments to India reached 0.5 million tons during 1962, growing from practically nothing in 1960. The 1963 volume is expected to have increased to 0.7 million/year.

Ceylon, on the other hand imported a relatively negligible amount in 1962 (about 180 thousand tons) while in 1963 this is expected to have reached 250 thousand tons⁽⁹⁾ and to grow further in order to supply the larger part of the increasing internal requirements of about 600 thousand tons/year⁽¹⁰⁾.

Early in 1964, Syria signed an agreement with Russia, under which it will import 280 thousand tons of diesel fuel, partly in exchange for 70 thousand tons of surplus Syrian gasoline. Syria formerly bought similar products from Shell.⁽¹¹⁾

Russian oil exports to other Soviet Bloc countries, will be discussed later in this study, as they institute a part of the Intra-Bloc oil consumption.

C- USSR's OIL EXPORT POTENTIAL

The ability of the USSR to increase oil export to the Non-Soviet Bloc will depend mainly on:

1- The volume of oil the USSR can produce. The Soviet's announced plan is to increase the 1963 production of 206 million tons to 240 millions in 1965, and to 390 million in 1970.

(8) Petroleum Intelligence Weekly, N. Y. Sept. 23, 1963, P.3

(9) Ibid, Nov. 4, 1963, P.9

(10) Ibid, Aug. 12, 1963, P.12

(11) Middle East Economic Survey, Beirut, Mar. 13, 1964, P.5

2- The growth of home consumption - itself influenced by the availability of alternative fuel sources, particularly coal and natural gas.

3- The USSR's transportation ability to overcome the physical problem of moving oil to markets from the producing regions in the interior to the terminals on the Black Sea, Baltic Sea and the Pacific Ocean and finally from there by tankers to customers, or to Central Europe.

4- The extent to which the USSR can break into markets that have been the special preserve of the international oil companies for decades, and its ability to maintain its presence in the markets it has acquired in the last few years.

The following pages will examine these areas, in the order listed above.

CHAPTER TWO

A REVIEW OF OIL EXPORT CAPABILITIES

A - THE USSR'S OIL PRODUCTION:

In order to set the stage, so to speak, for a study of the USSR's ability to meet its production targets for the years to come, it is useful to review the USSR's production growth over the last decade. This will be followed by an analysis of how well-prepared the USSR stands with respect to the two basic pre-requisites of oil production, namely: Reserves and Production Equipment.

1 - Historical Development:

The production of crude oil in the USSR during 1938, 1951-1963 and that planned for the years to come is given in Table II-A, Figure II-1 demonstrates the plan versus actual production. Figure II-2 provides graphical demonstration of production increases for major oil production areas in the world. An examination of these data reveals the following interesting observations:

a - The annual production growth rate has been fairly high since 1953, reaching a peak in 1956. This exceeded the 1955 production by 20.3%;

b - Starting with 1955 the growth rate in the USSR has been consistently higher than that for the world as a whole;

c - As of 1951 through 1963, the USSR's share of total world crude oil production has been consistently increasing. It increased from 7.0% in 1951 to 15.8% in 1963.

TABLE II-A

OIL PRODUCTION IN THE USSR 1938, 1951-1963 & 1965 (Plan)
(IN MILLION TONS/YEAR)

YEAR \ AREA	USSR	% CHANGE OVER PREVIOUS YEAR	TOTAL WORLD	% CHANGE OVER PREVIOUS YEAR	USSR'S SHARE OF TOTAL WORLD
1938	28	-----	274	-----	10.2%
1951	42	-----	604	-----	7.0
1952	46	+9.5%	639	+5.8%	7.2
1953	52	+13.0	674	+5.5	7.5
1954	59	+13.4	708	+5.0	8.1
1955	69	+16.9	791	+11.2	8.6
1956	83	+20.3	861	+8.6	9.6
1957	96	+15.7	903	+4.9	10.7
1958	112	+16.6	930	+3.0	12.0
1959	128	+14.3	1,003	+7.6	12.7
1960	146	+14.1	1,061	+7.6	13.5
1961	165	+13.0	1,152	+8.6	14.3
1962	183	+10.9	1,248	+8.3	14.7
1963	206	+12.6	1,305	+4.6	15.8
1964 (Plan)	222	+7.8			
1965	" 240	+8.1			
1970	" 390				
1980	" 690-710				

SOURCES:

Review

1938, 1951-1962: "Statistical ^{Review} of the World Oil Industry," British Petroleum Co., London, 1962, P.18 (Note: BP collects these data from reliable sources, thus its figures are extensively ^{used} in the oil industry.)

1963 (Actual) and 1964, 65, 70, and 80 (Plan) -- Petroleum Press Service, London, Jan., 1964, P.5

d - The USSR has set as its target, 222 Million tons for 1964 and 240 Million tons/year for the year 1965 which marks the end-year of its Seven-Year Plan. These increases however will mean a modest growth rate of 7.8% in 1964 and 8.1% in 1965. This may partly be due to production equipment bottlenecks, discussed later in this Chapter.

e - Except for its 1962 production, the USSR exceeded its target volumes for the first five years of its Seven-Year Plan;

f - After 1965, the USSR will have to achieve an annual average production increases of about 10% or 30 million tons, in order to meet its goal of 390 million tons for 1970, and about 700 million tons for 1980. (1)

The big question thus poses itself. Will the Soviet oil industry be able to achieve these ambitious targets ?

3 - Reserves:

The first pre-requisite of oil production is adequate oil reserves. Does the USSR have enough to meet the production targets ?

According to the Soviet economic weekly "Ekonomi-Cheskaya Gazeta", (2) proved reserves of crude oil must be increased six times over the next 15-18 years in order to meet the 1980 production target. This Weekly claims further that criticism is growing within Russia that too much attention is being devoted to established production regions and not enough to the opening of new ones.

(1) World Petroleum, N.Y., Dec. 1963 - P.54

(2) Quoted in Petroleum Intelligence Weekly, June 24, 1963 - P.6

FIGURE II-1

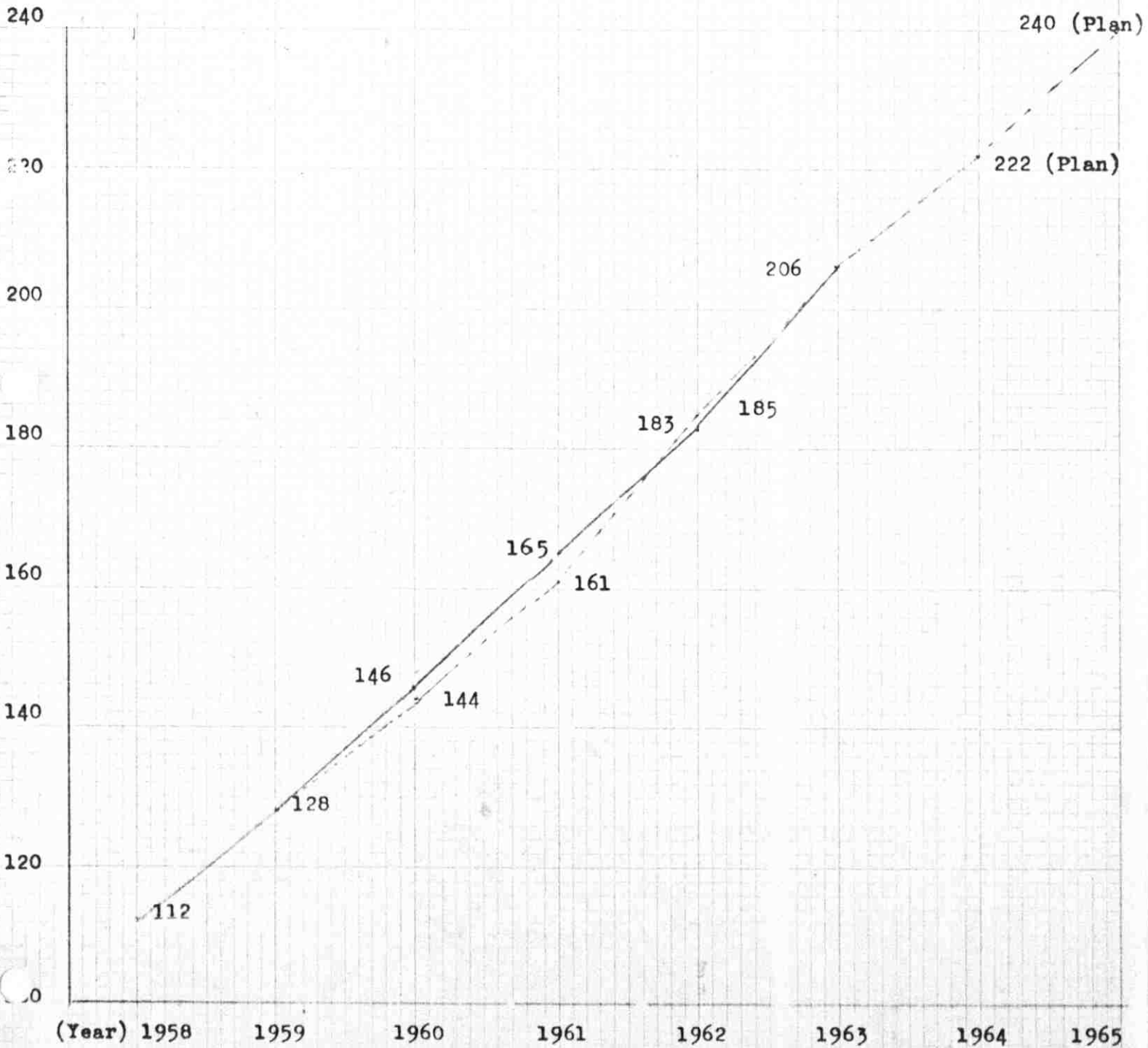
THE USSR'S

CRUDE OIL PRODUCTION AND TARGETS - 1958-1965

———— ACTUAL PRODUCTION

----- ANNUAL TARGETS UNDER CURRENT SEVEN-YEAR
PLAN: 1958-1965

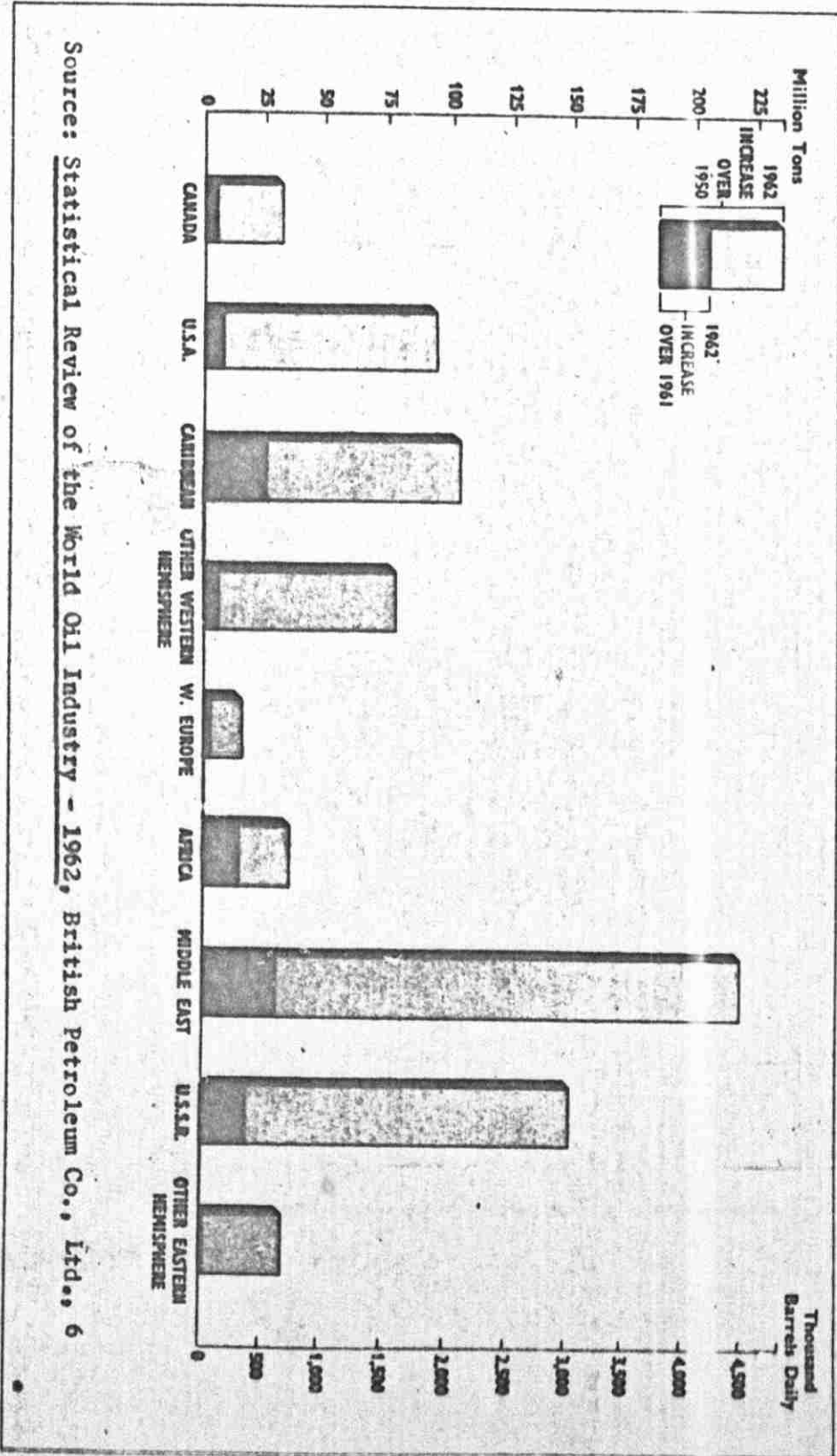
(Million Tons)



Sources: Same as Table II-A

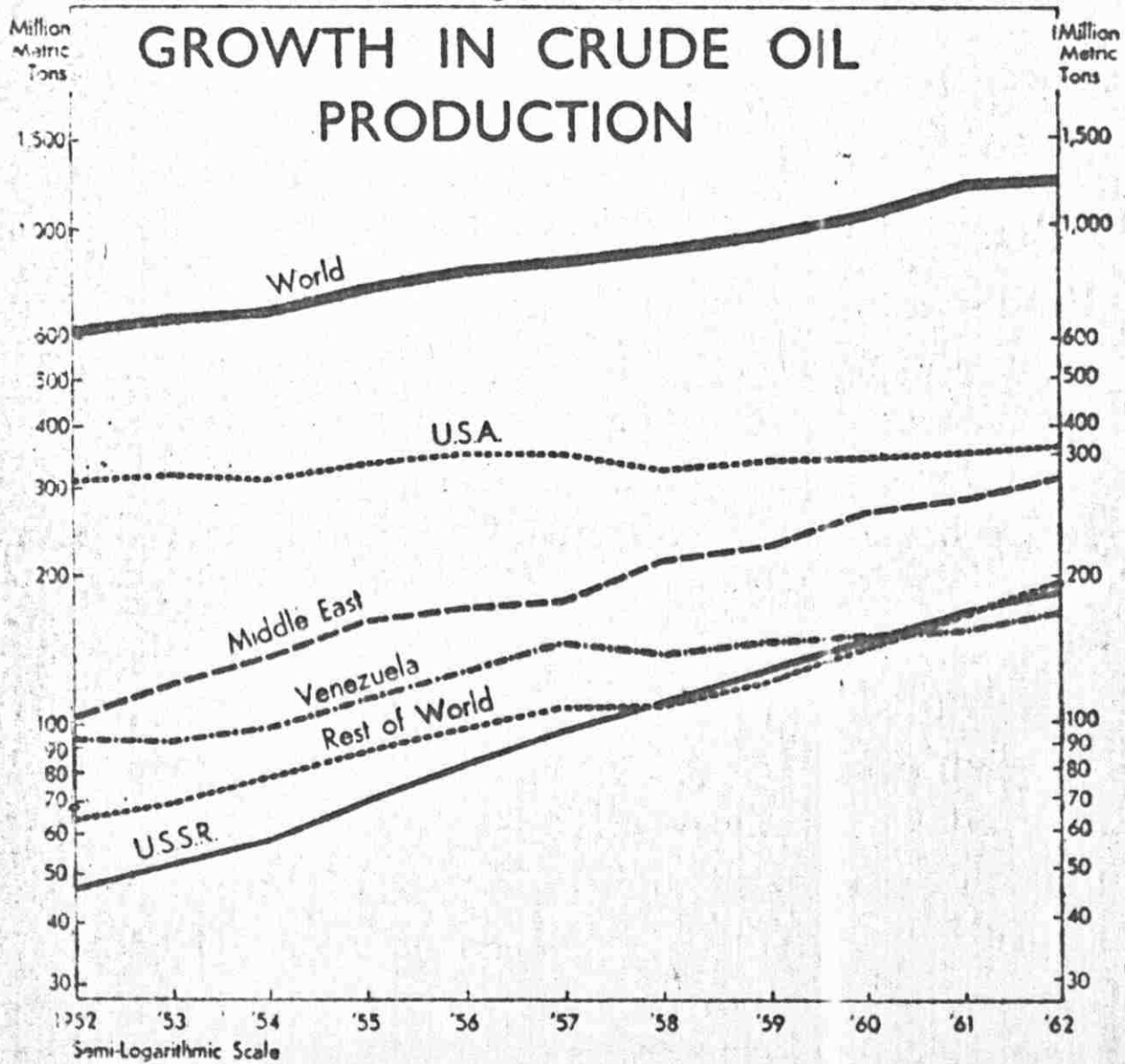
INCREASES IN CRUDE OIL PRODUCTION 1962 over 1950 and 1962 over 1961

FIGURE II-2



Source: Statistical Review of the World Oil Industry - 1962, British Petroleum Co., Ltd., 6

Figure II-3



Source: Petroleum Press Service, Jan., 1963, p. 5

This criticism is apparently taking effect. According to the Soviet Weekly, from now on emphasis is expected to be laid on extensive research programs in the new areas of Siberia, Kazakhstan & Central Asia. This, however, will not involve any slaking of effort in proved oil regions.

The main reason for the lack of enthusiasm on the part of the Soviet State Managers is thought to be due to their desire to play it safe by concentrating drilling in proved areas, mainly in the URALS-Volga basin. Another plausible reason, which will be taken up later, is the scarcity of specialized equipment such as deep drilling rigs and drilling bits.

Now, how the Soviet oil reserves stand? Table II-B illustrates the development of the oil reserves for 1958-1962. Figure II-4 presents graphically the USSR's share of estimated world oil reserves at the end of 1952 and 1962. It also provides a visual comparison of how it stands versus major oil producing areas. Figure II-5 provides comparison of production-versus-reserves for major producing areas.

From these three sources of data the following conclusions can be drawn:

a - The USSR's reserves are diminishing relative to the world total; for while they constituted 10.5% of this total in 1960, they dropped to 9.0% in 1962. Production in 1962 must have been more than additions to reserves which explains the drop in the 1962 reserves to 3,285 millions, from the 1961's 4360 millions

b - This drop in reserves is contrasted with additions to reserves of 31% in the Middle East, 2.9% in the rest of the World and 1.4% in the whole world,

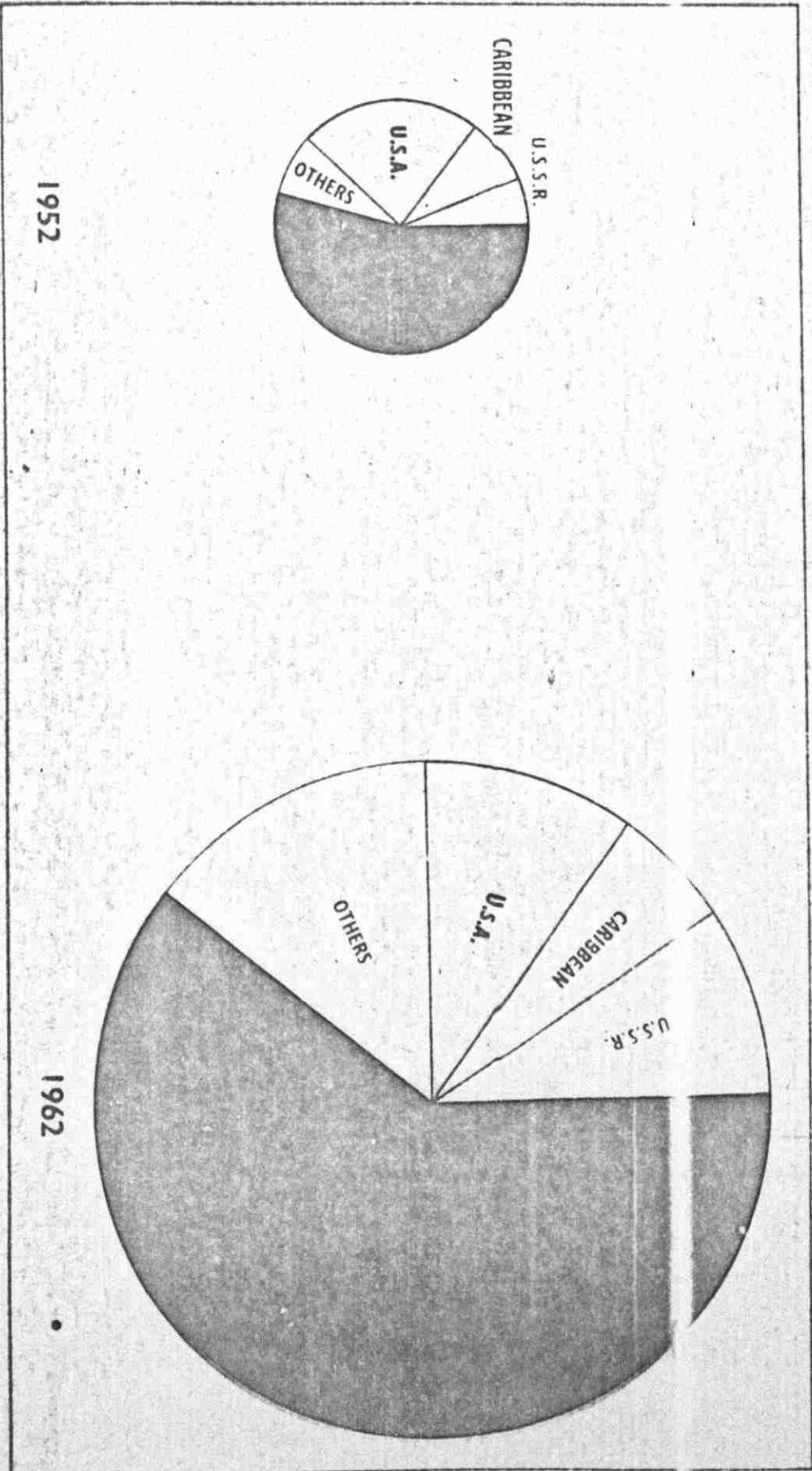
c - Figure II-5 indicates that although the USSR's proportion of world petroleum exceeded its proportion of proved world reserves for 1962, the USSR comes next to the Middle East and ahead of the USA and the

TABLE II-B
RESERVES (IN MILLIONS OF TONS)

	<u>1958</u>		<u>1959</u>		<u>1960</u>		<u>1961</u>		<u>1962</u>	
	<u>QUANTITY</u>	<u>%</u>	<u>QUANTITY</u>	<u>%</u>	<u>QUANTITY</u>	<u>%</u>	<u>QUANTITY</u>	<u>%</u>	<u>QUANTITY</u>	<u>%</u>
USSR	3,525	9.4%	3,760	9.4%	4,270	10.5%	4,360	10.4%	3,625	9.0%
Plus/Minus Previous Year	—		+6.9%		+13.6%		+2.1%		-12.3%	
ME (Middle East)	23,375	62.4	24,450	60.9	24,475	60.1	25,270	60.2	26,045	61.2
Plus/Minus Previous Year	—		+4.6%		+1%		+3.2%		+3.1%	
Rest of The World	10,555	28.2	11,845	29.7	12,005	29.4	12,335	29.4	12,690	29.8
Plus/Minus Previous Year	—		+12.2		+1.4%		+2.7		+2.9	
World	37,455	100.0%	39,955	100.0%	40,750	100.0%	41,965	100.0%	42,560	100.0%
Plus/Minus Previous Year			+6.7%		+2.0%		+3.0%		+1.4%	

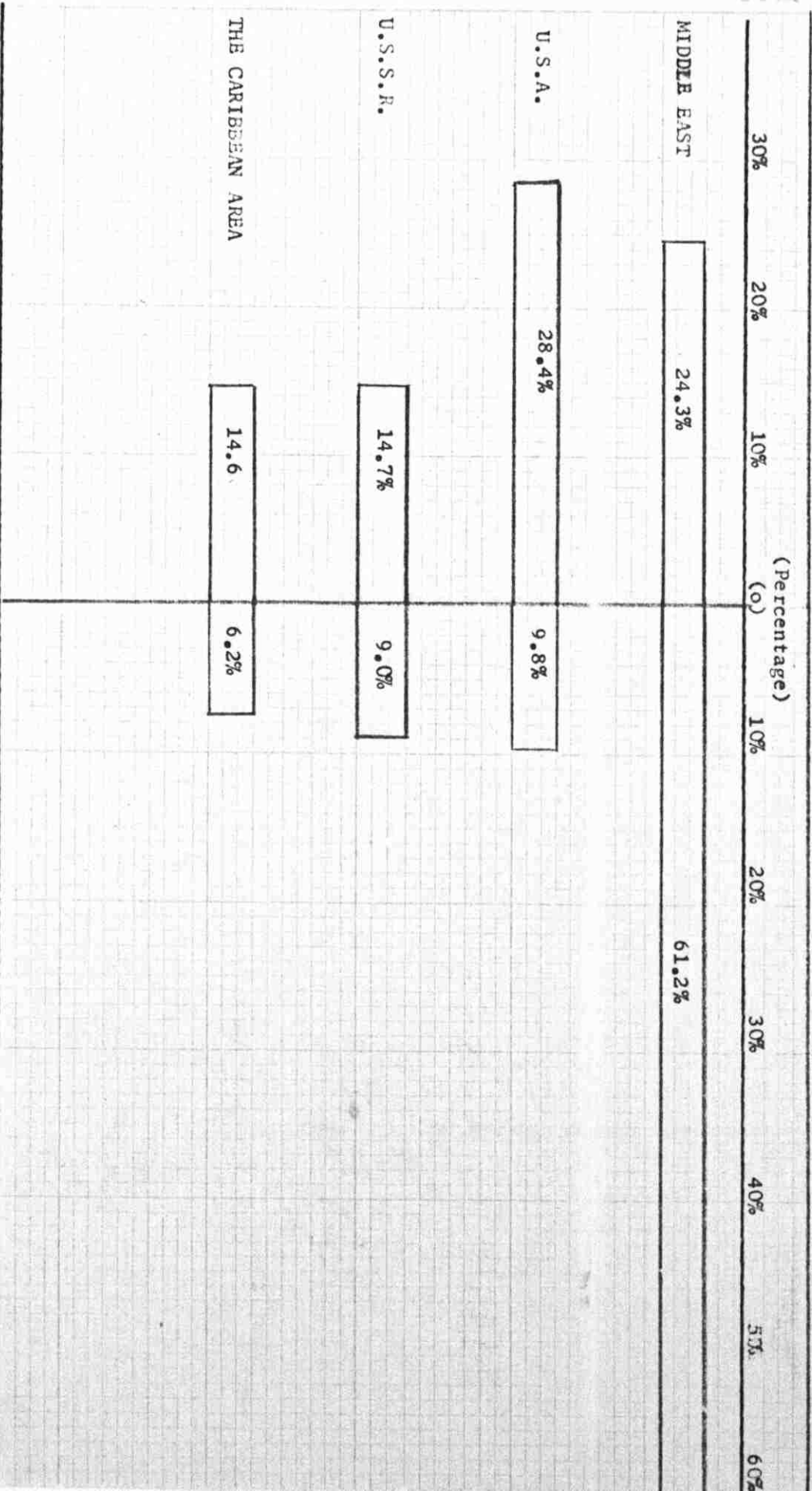
Basic Data collected from BP's "Statistical Review of the World 611 Industry" 1959, P.5, 1960 P.5, 1961 P.5, 1962 P.5.

FIGURE II-4 PUBLISHED PROVED RESERVES AT END 1952 AND END 1962



Source: Same as II-5

FIGURE 11-5
WORLD OIL PRODUCTION AND PROVED OIL RESERVES



SOURCE: Collected from "Statistical Review of the World Oil Industry - 1962", British Petroleum Co., Ltd., pp. 5 & 7

Caribbean, by the ratio of reserves to production.

3 - Drilling & Producing Equipment & Technology:

Just recently, the National Petroleum Council of the USA published, as one of its findings, the Soviet industry's "Major vulnerability". It says that Russia has "the geological potential for continued increases" in oil and gas output. But, it finds, the Soviet's greatest hazard in the 1961-80 production plans can be found in their inability to produce enough of seven essential equipment items:

- 1 - Deep drilling rigs
- 2 - Bits for all purposes
- 3 - Pipe of all diameters
- 4 - Compressors for transmission gas pipelines
- 5 - Pumps for trunk oil pipelines
- 6 - Drill pipe, particularly high yield types.
- 7 - Secondary refining facilities.

Drilling equipment deficiencies are thought to be curbing the Russians current push to increase indigenous reserves and to produce new oil from major deposits.⁽³⁾

In order to remedy these equipment deficiencies, the Russians are seeking negotiations with Western manufacturers to fill this gap. Apparently things are making headway in favor of expanded purchases. A panel including representatives of US business has indicated willingness to increase East-West trade.⁽⁴⁾

(3) Petroleum Intelligence Weekly, April 6, 1964 - P.5

(4) ibid

In summing up, it would appear that the USSR's planned petroleum production levels for 1965, 1970, and 1980 can hardly be limited by geologic factors. It would seem however that the USSR's success or failure will depend largely on its addition to reserves and ability to provide the necessary capital, equipment, trained manapower and first-class planning and operating managers.

The USSR appears to meet no difficulty in meeting most of those requirements and is in the process of catching up with the rest. It will probably find in the West a ready supply source for its equipment and materials shortages, although there is some question as to how the USSR can pay for a large volume of imported equipment?. This will be discussed later in this paper.

B. THE USSR'S OIL CONSUMPTION

In the preceding section we discussed the USSR's oil production ability as one of the determinants of its oil export potential. This section will examine the growth of home consumption of petroleum energy.

In dividing the production increases between domestic consumption and export availabilities, the Soviet planners have some flexibility in determining the potential levels of consumption. But without more knowledge of Soviet plans for domestic consumption than is available from published sources, it is difficult to guess reasonably at the volume of oil that the USSR will dispose of on the world market in the coming years. However, it seems useful to examine:

1. The development of the "apparent" USSR oil consumption - this being the result of production less net exports;
2. The pattern of energy consumption;
3. The effect of the developing chemical and petrochemical industries;
4. The oil requirements of the satellites, as they would reflect on the exportable volume to the non-Soviet world, the main concern of this thesis.

The following pages will examine these topics:

1. Development of Apparent Oil Consumption:

In Table II-C, the apparent consumption, column (4) is arrived at by deducting the net export (exports minus imports) from the total production. As all of these four amounts are published and known to be as close to "actual" as possible, the apparent consumption

Table II-C

OIL PRODUCTION AND TRADE OF THE USSR, SELECTED YEARS, 1913 - 1962
AND ESTIMATES FOR 1965 & 1975

(in millions of metric tons (T) and per cent)

Year	(1)	(2)	(3)	(4)	(5)
	Crude Oil Production	Crude Oil & Refined Products Imports	Crude Oil & Refined Products Combined Exports	Apparent Consumption (1)+(2)-(3)	Net Exports (3) - (2)
	millions of metric tons (T)				
1913	9.2	0.0	1.0	8.2	1.0
1932	21.4	0.4	6.1	15.7	5.7
1940	31.1	0.1	0.9	30.3	0.8
1950	37.9	2.6	1.1	36.4	1.5
1955	69.0	4.4	8.0	65.4	3.6
1956	83.0	5.3	10.1	78.2	4.8
1957	96.0	4.2	13.7	86.5	9.5
1958	112.0	4.3	18.1	98.2	13.8
1959	128.0	4.4	25.4	107.0	21.0
1960	146.0	4.4	33.2	119.2	28.8
1961	165.0	3.6	41.2	127.4	37.6
1962	183.0	2.8	45.4	140.4	42.6
1965 (Est.)	230-272	N.A.	51-64	175-208 (Est.)	N.A.
1975	" 412-560	"	70-162	342-398 (Est.)	N.A.

(per cent)

1913	100.0	0.0	10.9	89.1	10.9
1932	100.0	1.9	28.5	73.4	26.6
1940	100.0	0.3	2.9	97.4	2.6
1950	100.0	6.9	2.9	96.0	4.0
1955	100.0	6.4	11.3	94.8	5.2
1956	100.0	6.4	12.0	94.2	5.8
1957	100.0	4.4	13.9	90.1	9.9
1958	100.0	3.8	16.0	87.7	12.3
1959	100.0	3.4	19.6	83.6	16.4
1960	100.0	3.0	22.4	81.6	19.7
1961	100.0	2.2	25.0	77.2	22.8
1962	100.0	1.5	24.8	76.7	23.3

Sources:

Production:

1913-1950: National Economy of the USSR in 1959: Statistical Annual - (in Russian), Moscow, 1960, pp. 184, 186.

1955-1961: Statistical Review of the World Oil Industry, The British Petroleum Co., Ltd., London, 1961, pp 18 & 19

1962: ibid, 1962, p. 18

Imports, Exports:

- 1913-1940: Foreign Trade of the USSR 1918-1940 (in Russian),
Moscow, 1960, pp. 45, 129, 192, 211, 341, 406.
- 1950: National Economy of the USSR in 1958: Statistical Annual
(in Russian), Moscow, 1959, pp. 802, 804.
- 1955: Foreign Trade of the USSR in 1956 (in Russian), Moscow, 1958.
- 1956-1957: Foreign Trade of the USSR in 1957 (in Russian),
Moscow, 1958.
- 1958-1959: Foreign Trade of the USSR in 1959 (in Russian),
Moscow, 1960.
- 1960-1961: Petroleum Press Service, London, October, 1962, P. 389.
- 1962: ibid, October, 1963, p.367
- 1965 & 1975: Production, consumption and exports:
Richard Judy, "The Importance of the Soviet Union for
World Oil Economy from 1960 through 1975", 1963
Dunker & Humlot, Berlin, Germany.

arrived at would serve the purpose of estimating the domestic consumption, particularly in the absence of any reliable data.

Now, although the apparent petroleum consumption has been increasing in absolute quantities - from 65.4 million tons in 1955 to 140.4 millions in 1962 and the consumption per head has almost doubled over the last 10 years, (5) its share in the total oil production has been diminishing - from 94.8% to 76.7% for 1955 and 1962, respectively. The implications of this being that: first, the consumption rate is not growing as fast as the production rate, (6) second, the exportable volume has been taking advantage of this "discrepancy" and third, another form of energy is getting a bigger share of the total energy consumption picture. In this case it is natural gas.

3. Pattern of Energy Consumption:

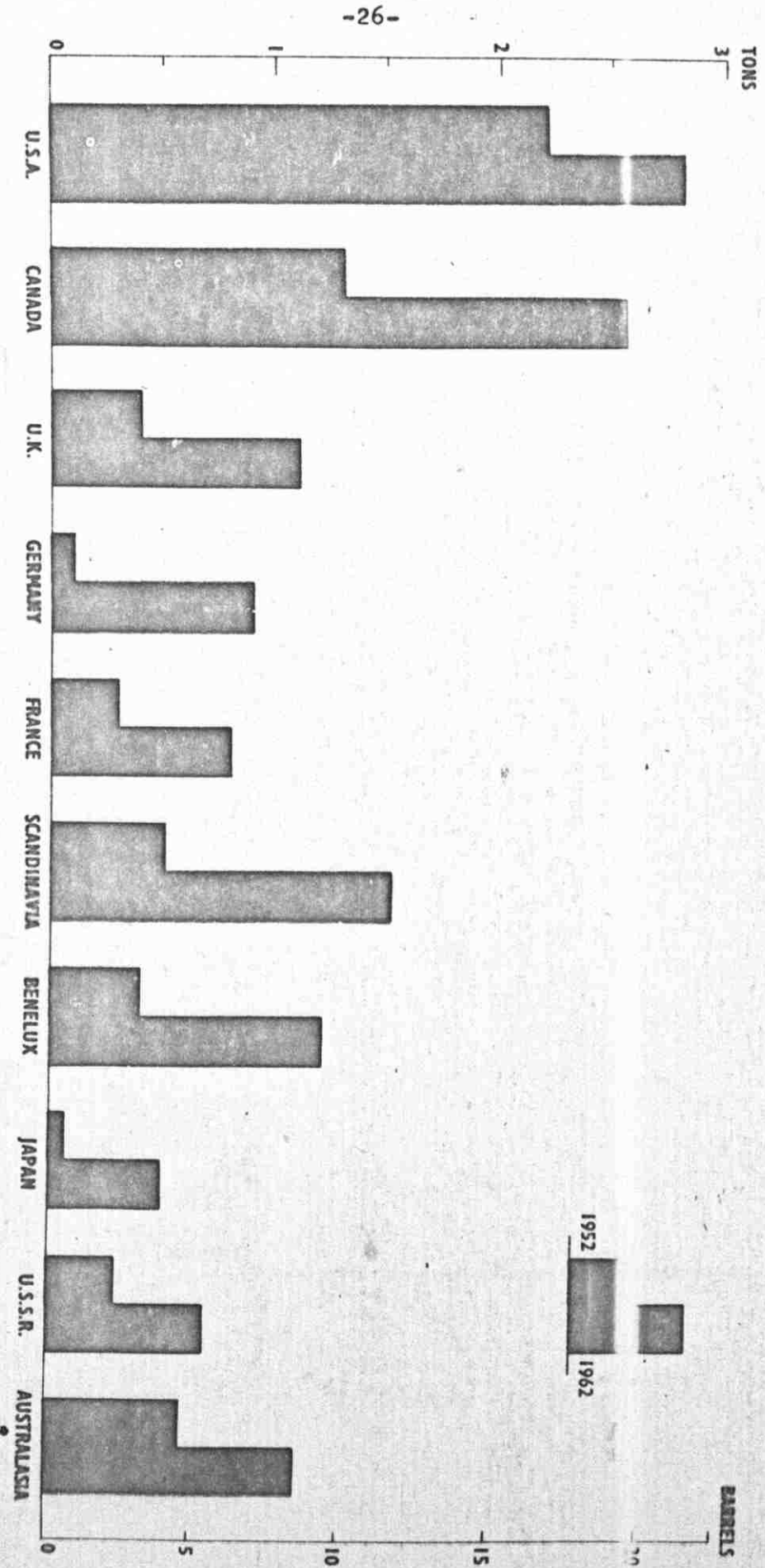
The energy demand in the USSR is graphically illustrated in Fig. II-8 and the changing pattern of energy consumption is expressed as a percent of total on Table II-D: Here, a couple of observations present themselves: first, the total energy consumption has grown from 290 million ton oil equivalent in 1955 to about 470 millions in 1961, or an annual growth rate of roughly 15%; second, solid fuel has been maintaining a plateau with respect to quantity consumed and losing ground in proportion, from 71.7% in 1955 to 56.6% in 1961 and to be reduced to 42.6% by 1963; third, oil consumption has been growing modestly but steadily over the last few years, in absolute quantities and in proportion; fourth, natural gas

(5) See Figure II-6 for graphical presentation.

(6) See Figure II-7 for graphical presentation.

FIGURE II-6

OIL CONSUMPTION PER HEAD IN SELECTED AREAS 1952 AND 1962



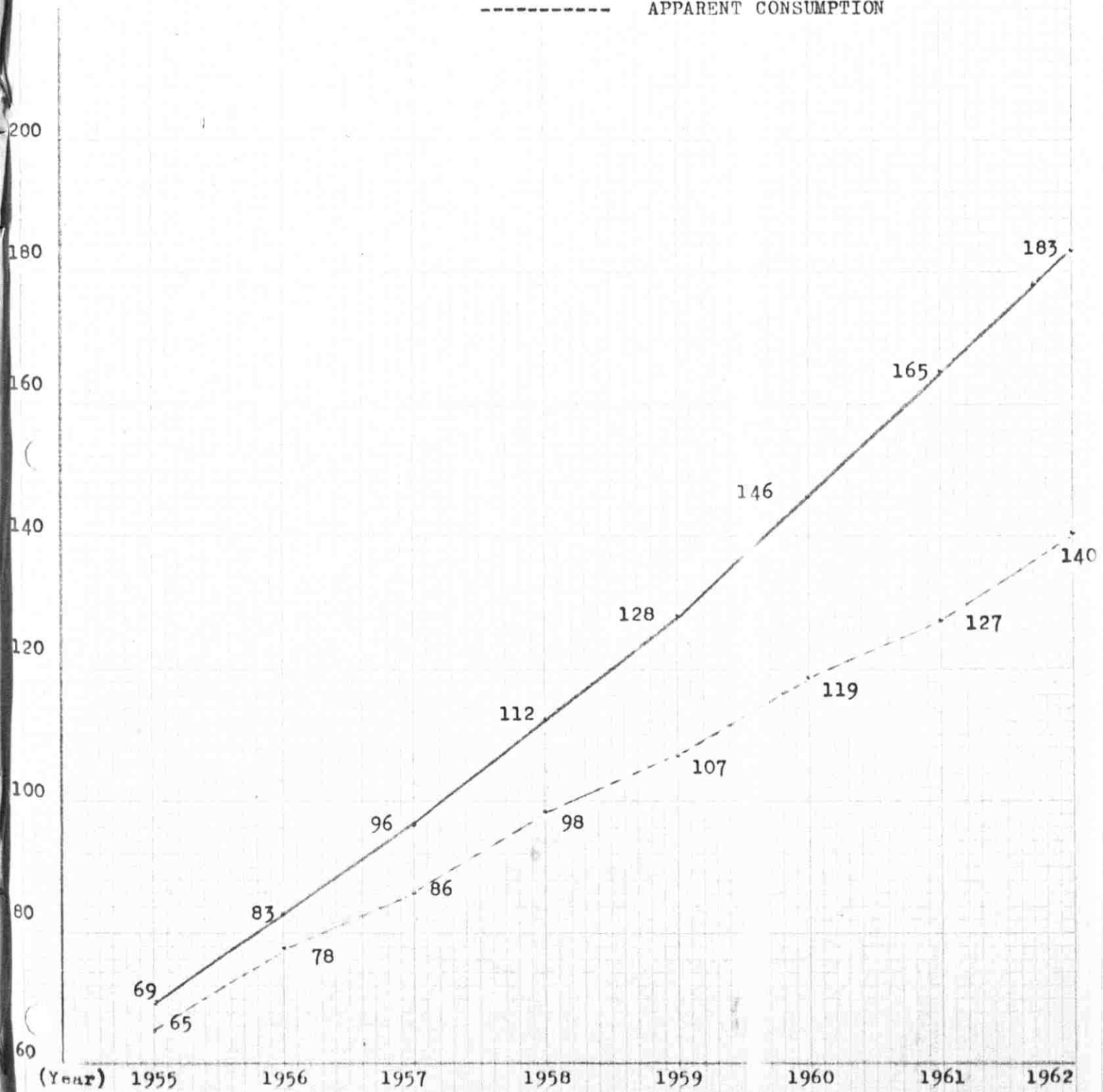
Source: "Statistical Review of World Oil Industry" - 1962, p.8
British Petroleum Co., Ltd., London

FIGURE II-7

OIL PRODUCTION VERSUS APPARENT OIL CONSUMPTION
IN THE USSR - 1955-1962

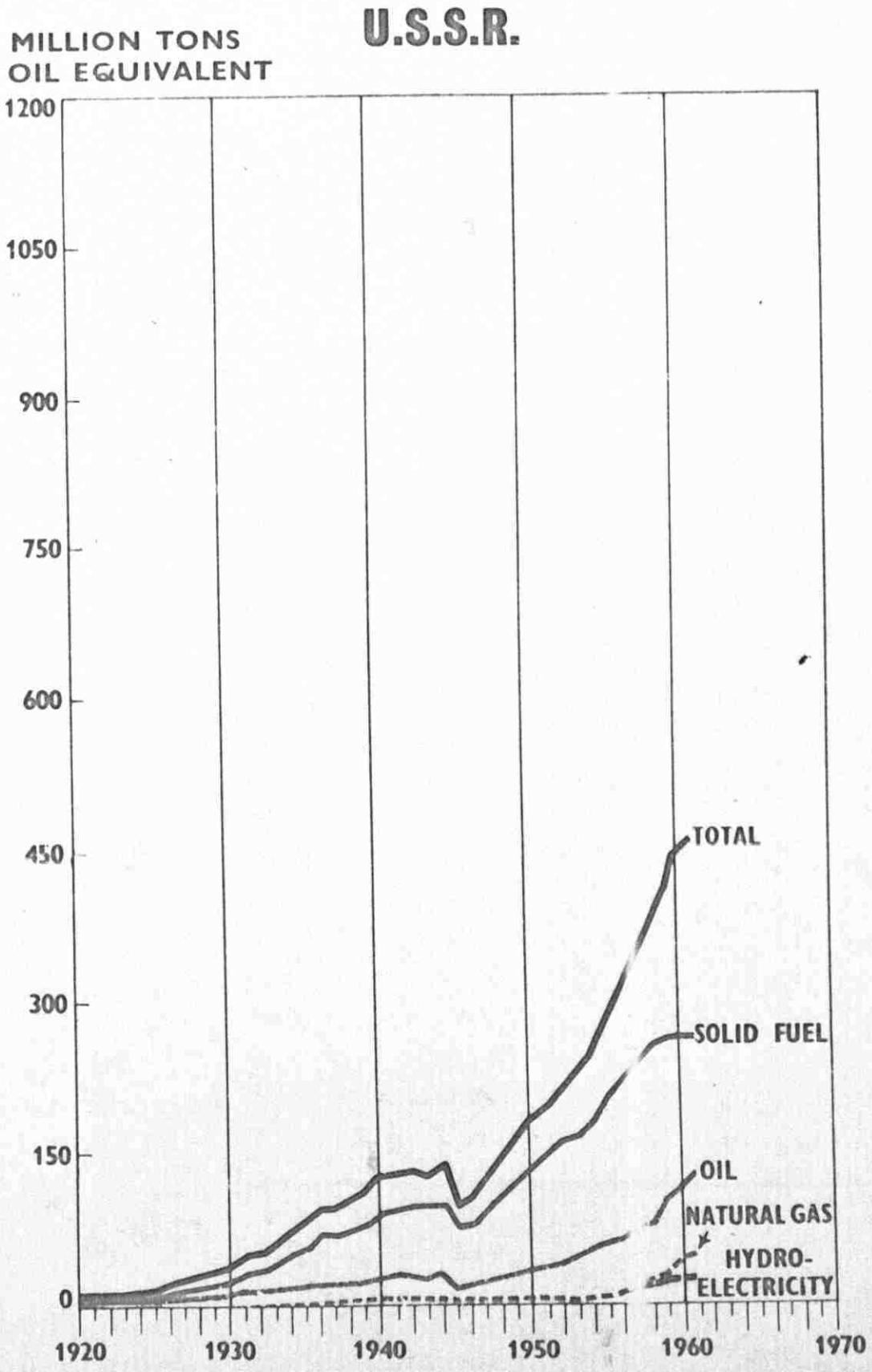
MILLION TONS

———— PRODUCTION
----- APPARENT CONSUMPTION



DATA BASED ON TABLE II-C

Figure II-8
ENERGY DEMAND



Source: "Statistical Review of the World Oil Industry", British Petroleum Co., 1961, p.16

TABLE II-D

PATTERN OF ENERGY CONSUMPTION IN THE USSR FOR SELECTED YEARS
(AS a % of Total)

	<u>1955</u>	<u>1958</u>	<u>1961</u>	<u>1985</u>
Solid Fuel	71.1%	58.2%	58.5%	42.8%
Oil	22.2	23.1	27.6	29.7
Natural Gas	4.4	5.5	12.0	16.8
Hydro Electricity	2.3	3.7	4.0	4.3
Others +	—	9.7	—	6.2
TOTAL:	100.0%	100.0%	100.0%	100.0%

SOURCES: 1955 and 1961 Calculated from Fig. II-1

1958 and 1985: NPC's "Impact of Oil Export from the Soviet Bloc"
Vol. 1, P.49

+ Others include Peat, Shale, Fuel Wood ..etc.

is advancing at a relatively rapid rate and is slated to meet 16.8 of total energy requirements.

On the supply side of energy in the USSR, one observes a similar changing pattern, with growing emphasis on natural gas with the latest record (23%) of annual growth rate registered in 1962 over 1961 production. The 1963 production is expected to exceed that of 1962 by 22%(7). There are at least two main reasons for this surge in natural gas production and consumption: one, it is cheaper, than oil, to produce and Soviet planners feel that natural gas holds the main answer to Russia's industrial development, and that oil should be a key export product.(8)

3. The Effect of Chemical and Petrochemical Industries in the USSR:

In the past, the Russians gave comparatively low priority to chemicals and concentrated mainly on basic industries such as steel, electricity, oil, and heavy engineering. Now, it is reported, the chemical industry has come to the forefront of the national planning and the Russians hope to achieve radical improvements in the economy as a whole by producing more chemical products.

Table II-F indicates the output of certain chemical products in the USSR in 1958 and 1963, together with the targets set for the years 1965 and 1970. Compared with the year 1958 over-all production of chemicals is expected to rise about six times by 1970.

What is really of interest here is (a) the fact that most of the new chemicals will be based on oil and gas feedstocks and hence

(7) Petroleum Intelligence Weekly, Aug. 26, 1963 - P. 2

(8) Ibid, Feb. 11, 1963 - P. 3

TABLE II-E

ENERGY PRODUCTION IN THE USSR 1958-1965, 1970 & 1980

YEAR	CRUDE OIL (MILLION TONS)	% CHANGE OVER PRE- VIOUS YEAR	COAL AND LIGNITE (MILLION TONS)	% CHANGE OVER PRE- VIOUS YEAR	GAS (MAINLY NATURAL GAS (THOU. MIL. Cu. Met.))	% CHANGE OVER PRE- VIOUS YEAR	ELECTRIC POWER (THOUS. MIL. Kw.hr)	% CHANGE OVER PRE- VIOUS YEAR
1958	112	—	496	—	30	—	235	—
1959	128	+14.3%	507	2.2%	37	+23.3%	265	+12.8%
1960	146	+14.1	513	+1.1	47	+27.0	292	+10.0
1961	165	+13.0	510	-0.6	61	+30.0	328	+12.3
1962	183	+10.9	517	+1.4	75	+23.0	369	+12.5
1963	208	+12.6	532	+2.9	91.5	+22.0	412	+11.7
1964(est)	222	+7.8	537	+1.0	N. A.	—	N.A.	—
1965(Plan)	240	+8.1	553	+3.0	128	—	508	—
1970(Plan)	390	+12.5(Avg.)	688-700	—	310-325	—	900-1000	—
1980(Plan)	690-710	+7.8 "	1,180-1200	—	680-720	—	2,700-3000	—

TABLE II-F

USSR'S PRODUCTION OF CHEMICALS
 (In Thousand Million Tons, Unless Otherwise Indicated)

	1958	1963	1965 (Plan)	1970 (Plan)
Fertilizers	12,400	20,000	35,000	70-80,000
Weed & Pest Killers	23	59.7	125	8-900
Plastics & Synthetic Resins	257	580	950	3,500-4000
Man-Made Fibres	166	310	444	1,350
Synthetic Detergents	7.9	75	(a)	(a)
Car Tyres (millions)	14.4	22.5	28	44

(a) No Figures Given.

SOURCE: Petroleum Press Service, Feb. 1964, P. 19

more domestic demand may be anticipated. Also, (b) about 200 new major plants are to be set up, some of which will have to be purchased from the Western companies. This latter part is looked upon by some oil industry experts as a cause for an intensification of the Soviet oil export drive to pay for the \$11-billion worth of chemical equipment.⁽⁹⁾

On the other hand, the USSR claims that "the main object of the big advancement of oil and petrochemical industry is to meet the immense and ever growing demand of the USSR for oil and gas and the products of their processing, this being an urgent need of the country's national economy."⁽¹⁰⁾

4. The Oil Requirement of Other Soviet Bloc Countries:

In planning for oil exports to the non-Soviet world, the USSR has to take into account, together with its own consumption, the oil requirements of its partners in Eastern Europe.

As shown in Table II-H crude deliveries from the USSR to the East European Soviet bloc countries have already risen sharply and steadily from 2.2 million tons/year in 1955 to 13.3 million in 1962. Deliveries to these countries are expected to reach about 18.0 million tons in 1965, at the time the "Comecon" system is expected to mark its full-scale operation. (The next section of this paper will discuss further this pipeline project).

(9) Petroleum Intelligence Weekly, Dec. 23, 1963 - P. 5

(10) M.A. Kobanov, "Some Aspects of the Development of the USSR Oil and Petrochemical Industry", Beirut, Nov. 5 - 12, 1963.

TABLE II-H

USSR OIL EXPORTS (CRUDE OIL AND REFINED PRODUCTS COMBINED), 1955 - 1963,
BY COUNTRY OF DESTINATION

(in millions of Metric Tons (T) per year)

Destination	Millions of T/year								
	1955	1956	1957	1958	1959	1960	1961	1962	1963
TOTAL	<u>8.0</u>	<u>10.1</u>	<u>13.7</u>	<u>18.1</u>	<u>25.4</u>	<u>33.2</u>	<u>41.2</u>	<u>45.4</u>	
Soviet Bloc	<u>3.3</u>	<u>4.9</u>	<u>7.2</u>	<u>8.5</u>	<u>10.8</u>	<u>12.5</u>	<u>14.3</u>	<u>15.8</u>	
Eastern Europe	2.2	2.9	5.0	5.7	7.3	9.2	10.9	13.3	
Czechoslovakia	(0.5)	(0.8)	(1.3)	(1.5)	(1.9)	(2.6)	(3.2)	(4.0)	
East Germany	(0.7)	(0.7)	(1.0)	(1.1)	(1.8)	(2.2)	(2.6)	(2.9)	
Hungary	(0.2)	(0.3)	(1.0)	(1.1)	(1.3)	(1.5)	(1.5)	(1.7)	
Poland	(0.7)	(0.9)	(1.3)	(1.5)	(1.9)	(2.1)	(2.4)	(3.0)	
Bulgaria	-	-	-	-	-	(0.8)	(1.1)	(1.6)	
Other	(0.1)	(0.2)	(0.4)	(0.5)	(0.5)	(-)	(0.1)	(0.1)	
Far East	1.1	2.0	2.1	2.8	3.5	3.3	3.4	2.5	
China	(1.0)	(1.7)	(1.8)	(2.5)	(3.1)	(3.0)	(2.9)	(1.9)	
Other	(0.1)	(0.3)	(0.3)	(0.3)	(0.4)	(0.3)	(0.5)	(0.6)	
Non-Soviet world	<u>3.3</u>	<u>5.1</u>	<u>6.1</u>	<u>9.6</u>	<u>14.5</u>	<u>20.6</u>	<u>26.8</u>	<u>29.6</u>	

SOURCE: Same as Table I-A

While preparing to export more oil to its European partners, (11) the USSR is actively assisting them in developing their own resources to meet their expanding demand. This is probably done for two reasons: one, as a part of an over-all energy coordination plan, and second, to decrease their reliance on the USSR's oil so that more of it would be exported to non-Soviet world, in line with its policy of steadily rising oil exports to the West to achieve its goals, whether economic or political. These goals will be discussed later in this paper, however.

In summing up, the USSR is faced with a rapidly rising demand for oil for its own expanding industries and those of its partners in Eastern Europe. But the fact remains that its production ability also, except for some equipment and materials, is not limited. It would seem wrong to assume that the USSR will be unable to meet its production targets, particularly, in the long run.

To summarize this section of the paper, as indicated in Table BI-C, the domestic crude consumption in the USSR will probably neither be less than 179 million tons nor exceed a limit of 208 million tons in 1965. For 1975, these figures can be fixed at 342 million tons and 398 million tons, respectively.

As it is to be expected, both the production and the domestic consumption in the USSR will expand in accordance with over-all economic growth, and thus the prospective exportable volume can be determined between upper limit of production and expected upper limit of consumption on the one hand, and between lower limit of production and the corresponding lower limit of consumption on the other. From this point of view,

(11) According to Petroleum Press Service, Dec. 1963, P. 454, oil exports to these partners will probably exceed 30 million tons/year by 1970.

net petroleum exports for 1965 will neither be under 51 million tons, nor over 64 million tons. In 1975, these figures will be 70 and 165 million tons, respectively.

Now that we have examined the production ability and the growth of home consumption, the two major determinants of exportable volume, we now move to study another factor which has an important bearing on the USSR's ability to intensify its export drive; namely, improvement and expansion of the USSR's transportation facilities. The following pages will discuss this aspect.

C- THE USSR'S OIL TRANSPORTATION FACILITIES

The USSR has been using, in varying proportions, four media in its oil transportation. These are: rail, tankers, inland waterways, and pipelines. (See Table II-G).

As the USSR's production output expands, additional transportation and related facilities will be required. Since our major concern is to study those media that help to implement the oil export drive, the following discussion will be limited to:

- 1- The pipe line system
- 2- The Russian Tanker Fleet
- 3- The expansion of Marine facilities on the Black Sea and the Baltic Sea - The two major outlets for overseas shipments.

1- THE PIPELINE SYSTEM IN THE USSR:

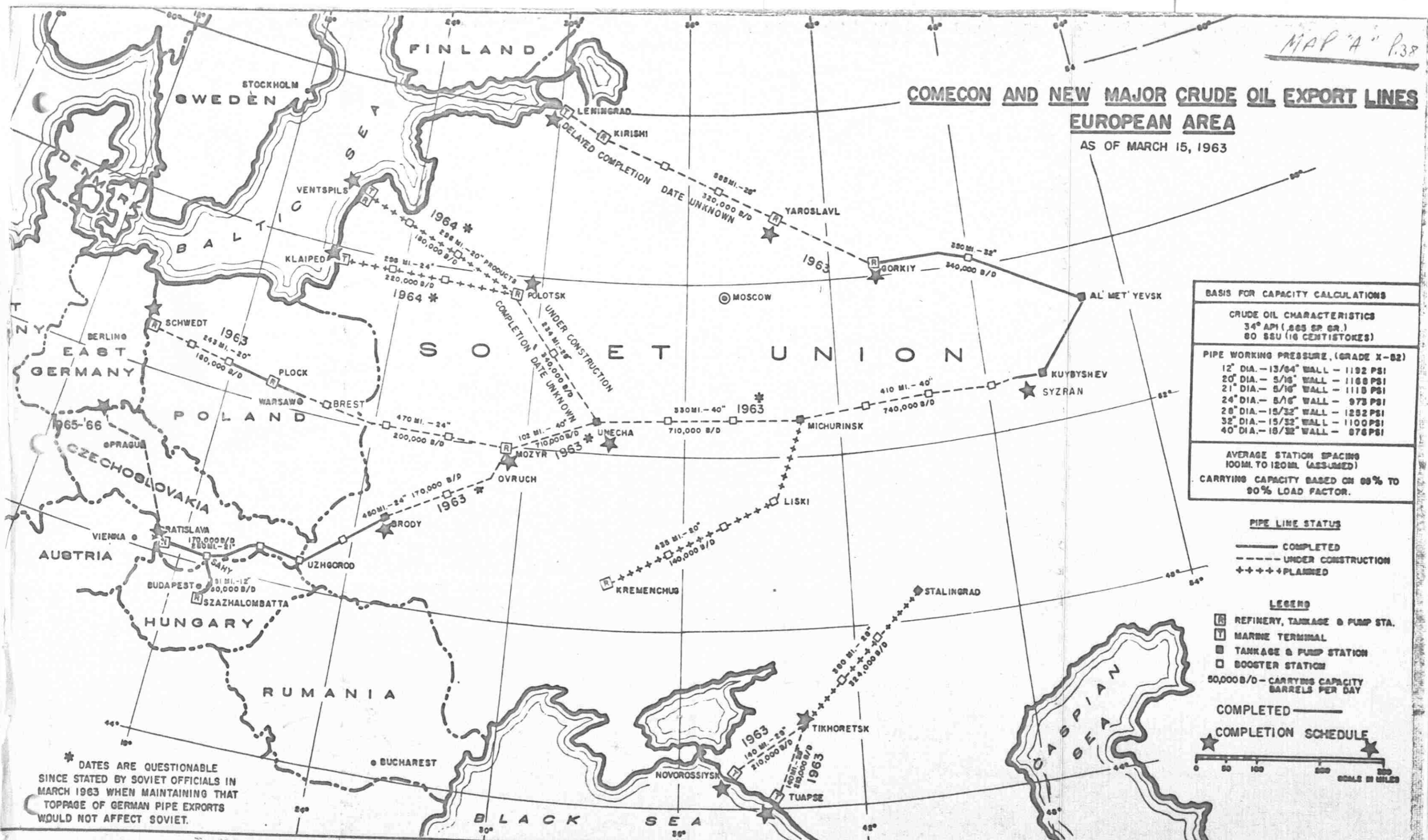
The current seven year plan calls for the construction of 10,500 kilometers of petroleum pipeline. The bulk of this relatively large expansion will be taken up by four major pipelines projects, which are either partially completed or planned. These four projects are shown on Map "A."

a- THE COMECON PIPELINE SYSTEM

which, including all branches, runs a distance of 3,595 miles and is designed to transport the Russian oil from the Urals-Volga oilfields to Poland, East Germany, Czechoslovakia, and Hungary. It is also designed to supply refineries planned or under construction in the USSR and to carry crude to Ventspils and Klaipeda, the Baltic crude export terminals. This system, when completed, is expected to have a carrying capacity of 740,000 barrels per day.

The system was scheduled for completion in 1964. This has been pushed back into 1965 mainly because of the shortage of large diameter

COMECON AND NEW MAJOR CRUDE OIL EXPORT LINES EUROPEAN AREA AS OF MARCH 15, 1963



BASIS FOR CAPACITY CALCULATIONS	
CRUDE OIL CHARACTERISTICS 34° API (.865 SP GR.) 80 SSU (16 CENTISTOKES)	
PIPE WORKING PRESSURE, (GRADE X-82)	
12" DIA. - 13/84" WALL	1192 PSI
20" DIA. - 5/16" WALL	1168 PSI
21" DIA. - 5/16" WALL	1118 PSI
24" DIA. - 5/16" WALL	978 PSI
28" DIA. - 15/32" WALL	1282 PSI
32" DIA. - 15/32" WALL	1100 PSI
40" DIA. - 18/32" WALL	876 PSI
AVERAGE STATION SPACING 100MI. TO 120MI. (ASSUMED)	
CARRYING CAPACITY BASED ON 99% TO 90% LOAD FACTOR.	

PIPE LINE STATUS	
—————	COMPLETED
-----	UNDER CONSTRUCTION
+++++	PLANNED

LEGEND

- [R] REFINERY, TANKAGE & PUMP STA.
- [Y] MARINE TERMINAL
- [S] TANKAGE & PUMP STATION
- [B] BOOSTER STATION
- 50,000B/D - CARRYING CAPACITY BARRELS PER DAY

COMPLETED ———

COMPLETION SCHEDULE

★

0 50 100 200 300
SCALE IN MILES

* DATES ARE QUESTIONABLE SINCE STATED BY SOVIET OFFICIALS IN MARCH 1963 WHEN MAINTAINING THAT TOPPAGE OF GERMAN PIPE EXPORTS WOULD NOT AFFECT SOVIET.

TABLE II-G

TRANSPORTATION OF PETROLEUM IN THE USSR-
BY TYPE OF CARRIER

<u>CARRIER</u>	<u>1958</u>		<u>1965 (PLAN)</u>	
	<u>BILLION</u> <u>TON MILES</u>	<u>PER CENT</u> <u>OF TOTAL</u>	<u>BILLION</u> <u>TON MILES</u>	<u>PER CENT</u> <u>OF TOTAL</u>
Rail	95.5	62.7%	156	46.1%
Tankers	26.1	17.1	53	15.6
Inland Waterway	9.8	6.4	15	4.4
Pipeline	21.0	13.8	115	33.9
TOTAL	<u>152.4</u>	<u>100.0</u>	<u>339</u>	<u>100.0</u>

SOURCE: National Petroleum Council, "Impact of Oil Exports from the Soviet"
Blac. Volume I - P.20

pipe as a result of the NATO nations' ban on pipe exports to the USSR. The NATO's decision-taken early in 1963 - was based on their feeling that large diameter pipe constituted a strategic item.

As a result of this ban, the Russians stepped up output of large-diameter steel pipe within the Soviet Union. They have announced the completion of large-diameter pipe-making installation. Industrial circles in Germany - the country that cut back its pipe deliveries most sharply-appear to believe that the Soviets will be self-sufficient in pipe output in the near future. (12)

b- THE AL'MET' YEVSK, IN THE URALS-VOLGA, TO LENINGRAD CRUDE PIPELINE

is the second major project which covers a distance of 935 miles to supply refineries and a crude export terminal. The line has a carrying capacity of about 340,000 barrels per day. The completion date was scheduled for 1963. However, this was delayed with no reason announced but probably it is the pipe shortage.

c- THE STALINGRAD TO BLACK SEA CRUDE PIPELINE extends over 660 miles to link the oil fields in the Stalingrad area with the Black Sea ports of Tuapse and Novarossiysk. This line is under construction at the present and scheduled for completion in 1965. It will have a capacity of 210,000 barrels per day to each of the two Black Sea ports.

d- THE UFA TO IRKUTZ AND FROM THERE TO NAKHODKA PIPELINE: the first part, a 2,300 mile section, from Ufa to Irkutsk, was completed early in Sept. 1963, (13a) the second part is planned but is not considered a part of the Seven Year Plan. It is to terminate ultimately at Nakhodka, a planned export terminal on the Pacific Ocean, and to supply refineries along the way. The carrying capacity of the first part of this project is estimated to be 320,000 barrels per day.

(12) Petroleum Intelligence Weekly, June 17, 1963 - P.1

(13a) Petroleum Times, London, Sept. 20, 1963, P.488

Now, what are the economic implications in this drive for pipeline transportation?

First, the transportation unit cost. This would be reduced since "The cost of oil transport by pipeline in Russia is said to be only 42% of the comparable cost of transport by rail"^(13b) This is supported by the shift in transportation media, illustrated in Table II-G;

Second, the Comecon system will certainly increase the dependence of the East European partners on the USSR for a cheap crude oil. This will certainly diminish the chances of their shifting to a possible supply source in the West;

Third, if the Russians went ahead with their plan of extending the Comecon from the refining center at Bratislava in Czechoslovakia through Moravia to Zubuzi, where a chemical center is located, they would be within 30 miles of West Germany.

Fourth, the Russian export capabilities to the Non-Soviet world would be increased by getting the oil closer to new terminals on the Baltic and the Pacific, to be shipped from there by tankers, the subject of our next discussion.

2- THE RUSSIAN TANKER FLEET

Concurrently with the construction of its oil export pipelines, the USSR is engaged in a three-side campaign to improve its sea transport facilities. First, a number of tankers are being built in Russian shipyards; second, shipyards in Japan, Italy, Finland, and Yugoslavia are now building a total of 1.3 million d.w.t. for the USSR,⁽¹⁴⁾ and third; oil ports are being constructed, or deepened and modernized, both on the Black Sea and on the Baltic.

The Russians, for reasons of their own, insist on selling oil on a

(13b) Petroleum Press Service - July, 1963, P.249

(14) Oil and Gas International, Tulsa, May, 1963

c.i.f. basis and, as long as their own fleet constitutes only 2.1% of total world fleet (see table II-K) they are compelled to make "spot" or "time" charters for foreign flag tankers. The depressed tanker market (see figure II-9) has worked very well to the advantage of the Russian oil export. However, in order to free themselves of this dependence, and particularly after what they suffered from the NATO pipe ban, it is only logical that the Russians wish to have an increased number of tankers under their own flag.

At the end of 1958, the Russian tanker fleet had a deadweight capacity of about 800,000 tons, and a target for 1965, the end for the Seven Year Plan, of 1.5 million dwt. ⁽¹⁵⁾ This program, however, was stepped up and the tonnage grew to 1.7 million within four years.

Meanwhile, the USSR's oil exports to Non-Communist Countries (including Cuba) have trebled over the same four years, from 9.6 million tons in 1958 to around 29.5 million tons in 1962 (see table I-A). The country therefore now requires more tankers as the exports by sea have increased.

The present Russian tanker fleet is comparatively small, by international standards. It accounts for only 2.1% of world total in terms of carrying capacity. The average size of its 133 tankers at the end of 1962 was below 16,600 - The standard size for a T-2 - (see table II-I). There are only twelve tankers in the 30-40,000 dwt. class in the Russian tanker fleet. Most are quite small units.

The 1958 - 1962 expansion of the Russian tanker fleet is believed to be only the beginning. At the end of 1962, the USSR had 52 tankers under construction or on order. These tankers aggregated more than 1.3 million dwt. When compared with its 1962 tanker fleet of 1.7 million dwt, this new construction represents about 77% of the total existing fleet. By way of contrast, tankers under construction or on order for the entire world represent only about 20% of the present world fleet. ⁽¹⁶⁾

(15) Petroleum Press Service, Aug., 1963, P.287

(16) Sun Oil Co.'s "Analysis of World Tanker Ships Fleet" Dec. 31, 1962, P.3

TABLE II-K

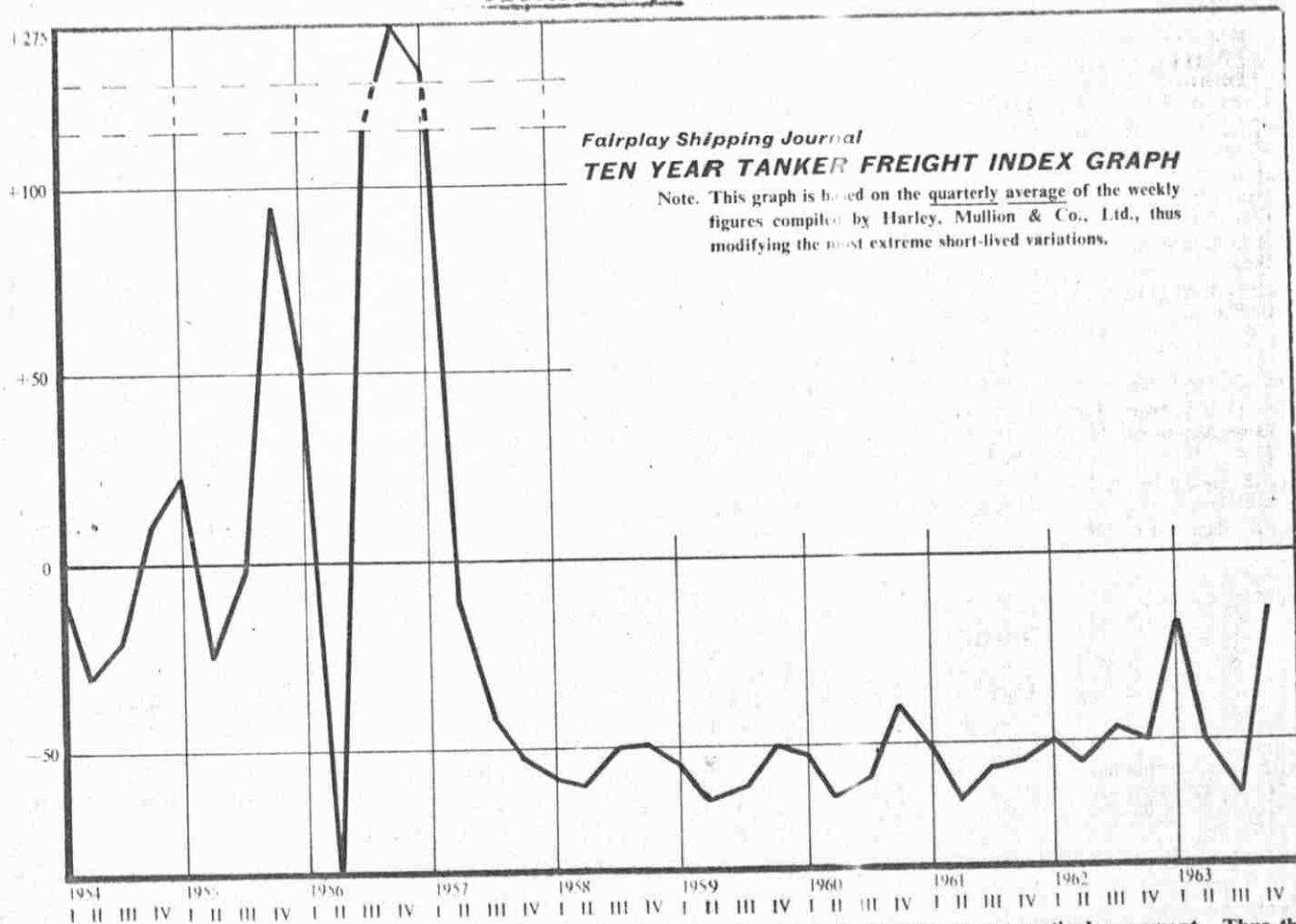
WORLD TANKER FLEET

<u>FLAG</u>	<u>VESSELS AT⁺</u> <u>END OF 1962</u>	<u>% OF WORLD</u> <u>FLEET</u>	<u>AVERAGE dwt.</u>	<u>TONNAGE %</u> <u>INCREASE</u> <u>SINCE 1957</u>
Liberia	738	16.3%	32,000	29.0
U. K.	683	15.0	21,800	45.3
Norway	646	14.2	21,200	21.8
U. S. A.	590	13.0	19,800	17.2
Japan	233	5.1	28,200	53.3
Panama	218	4.8	23,500	25.0
France	209	4.6	24,100	29.6
Sweden	179	4.0	22,500	33.9
Italy	176	3.9	22,900	39.6
Greece	164	3.6	25,400	72.8
Netherlands	151	3.3	23,500	65.6
USSR	97	2.1	12,800	30.6
Others	459	10.1	-----	-----
World	4,543	100.0	22,100	29.2

(+ T-2 equivalents - T-2 Tanker is 16,600 deadweight ton)

SOURCE: Oil and Gas International: Sept. 1963 - P.81

FIGURE II-9



It should be remembered that points on the graph represent quarterly averages and not rates at any particular moment. Thus the peak shown at the beginning of 1963 is the average for the first quarter, and that at the end of the year the average for the last quarter.

Source: Fairplay Shipping Journal, London, Jan. 9, 1964, p.95

TABLE II-LDEVELOPMENT OF USSR TANKER FLEET AS OF JAN., 1963

<u>YEAR OF CONSTRUCTION</u>	<u>NO.</u>	<u>DEADWEIGHT TONS</u>	<u>T-2 EQUIVALENT</u>
Prior to 1936	16	173,600	8.5
1936-1940	—	—	—
1941	—	—	—
1942			
1943			
1944	1	3,000	0.1
1945			
1946-1951	—	—	—
1952	1	13,200	0.8
1953	5	50,500	2.5
1954	10	115,000	5.7
1955	10	115,000	5.7
1956	13	140,800	6.9
1957	11	126,500	6.2
1958	6	47,000	2.4
1959	14	171,800	10.1
1960	19	359,200	22.8
1961	11	125,700	7.7
1962	16	264,000	17.8
TOTAL	133	1,705,300	97.2
Average Age	6 Years 4 mos.		

SOURCE: Sun Oil Co's "Analysis of World Tank Ship Fleet" Dec. 31, 1962,

The anticipated Soviet tanker fleet expansion, coinciding with the completion of the Comecon pipeline system, will fundamentally affect the whole Russian position in the international tanker market. Their demand for foreign flag tankers will diminish. According to the National Petroleum Council, the Soviet Bloc tanker fleet will be practically "self-sufficient" by 1965. (17)

Another factor which will reduce demand for tankers in the USSR's oil export drive is oil shipments to Northern Europe. As soon as the New Baltic Sea ports of Klaipeda and Ventspils are completed, Russian oil exports to these countries will not have to be hauled all the way from the Black Sea, as currently done. The new ports will also stimulate new markets in Northern Europe by reducing transport costs.

3- EXPANSION OF MARINE FACILITIES:

Preparatory to receiving larger ships in its terminals, the USSR is improving its port facilities. At present, new oil ports are under construction at the major Russian Black Sea Terminals together with considerable deepening of existing ones.

D- SUMMARY:

In the preceding pages, we limited our discussion to the factors that influence the Soviet oil drive potential and which are controllable, to a great extent, by the Russians. Those factors are: 1. The volume of oil the USSR can produce; 2. The growth of home consumption; and 3. The USSR's oil transportation capabilities. Our discussion in this connection has revealed the following observations:

a- The planned petroleum production levels for the years to come can hardly be limited by geologic factors and that its shortage of production equipment and material, inconvenient as it were, does not pose a serious problem to the USSR;

b- The home consumption and the "chemicalization" policy,

(17) "Impact of Oil Exports from the Soviet Bloc," VOL. I
National Petroleum Council, 1962, P.22

- 1- What are the market prospects for these exports?
- 2- How strong are the objectives behind this oil drive?
- 3- What is the impact of this export drive on the Middle East Oil Market?
- 4- What can be done about this drive to limit its adverse effects on Western Markets, if any?

The remaining part of this study will attempt to answer these questions.

CHAPTER THREE

THE SOVIET OIL EXPORTS MARKET PROSPECTS

INTRODUCTION

In the Summary of the preceding Chapter we concluded that the potential Soviet oil export to the Non-Soviet world will range between 33.0 million tons (660,000 b/d) and 41.6 million tons (832,000 b/d) in 1965; for 1975, this is estimated to range between 45.0 million tons (900,000 b/d) and 107.0 million tons (2,140,000 b/d). Suppose for practical purposes we take the midpoints of these two estimates and assume 37.3 million tons (746,000 b/d) and 76.0 million tons (1,520,000 b/d) for 1965 and 1975, respectively. If we apply these against the midpoints of the production range estimates (see Table II-C) we obtain 14.9% and 15.6% as the exportable shares of oil production for the years in question. These percentages may seem conservative when compared with those the Russians have attained the last three-four years (see Table I-B). But they will sound reasonable enough if we think of (a) the growing production volume and (b) the expanding home consumption, both in the Soviet Union and the other Soviet countries. Also, the projected exportable volume for 1965 would be 126, if we take 1962 as an index of 100. That of 1975 would be 204 if we take 1965 as an index of 100.

This Chapter will discuss the favorable factors that would facilitate the marketing of these exports; it will also go over the present and potential limitations imposed on these exports.

A. PROMISING FACTORS:

1. The expanding demand for oil in non-Soviet world,

Figure III-1 follows the energy demand pattern for the non-Soviet world. It indicates mainly that solid fuel is losing ground and its share in the total energy consumption has dropped in 10 years (1953-1963) from about 49% to 35%. This loss by solid fuel was picked up by petroleum fuels and natural gas. The former jumped from 35% to 45% of total while the latter increased its share from about 14% to 19%. Hence, petroleum fuels have been the greater winner all the way.

The non-Soviet world imported 65.2% of total Soviet oil exports for 1962. This percentage grew from about 41.2% in 1955 (see Table III-A).

The climbing share of oil in the energy demand pattern in the non-Soviet world, together with the latter's growing share of Soviet oil exports, gives some indication of the non-Soviet world's preparedness to accept more Soviet oil in the future.

2. The absence of an BEC energy policy,

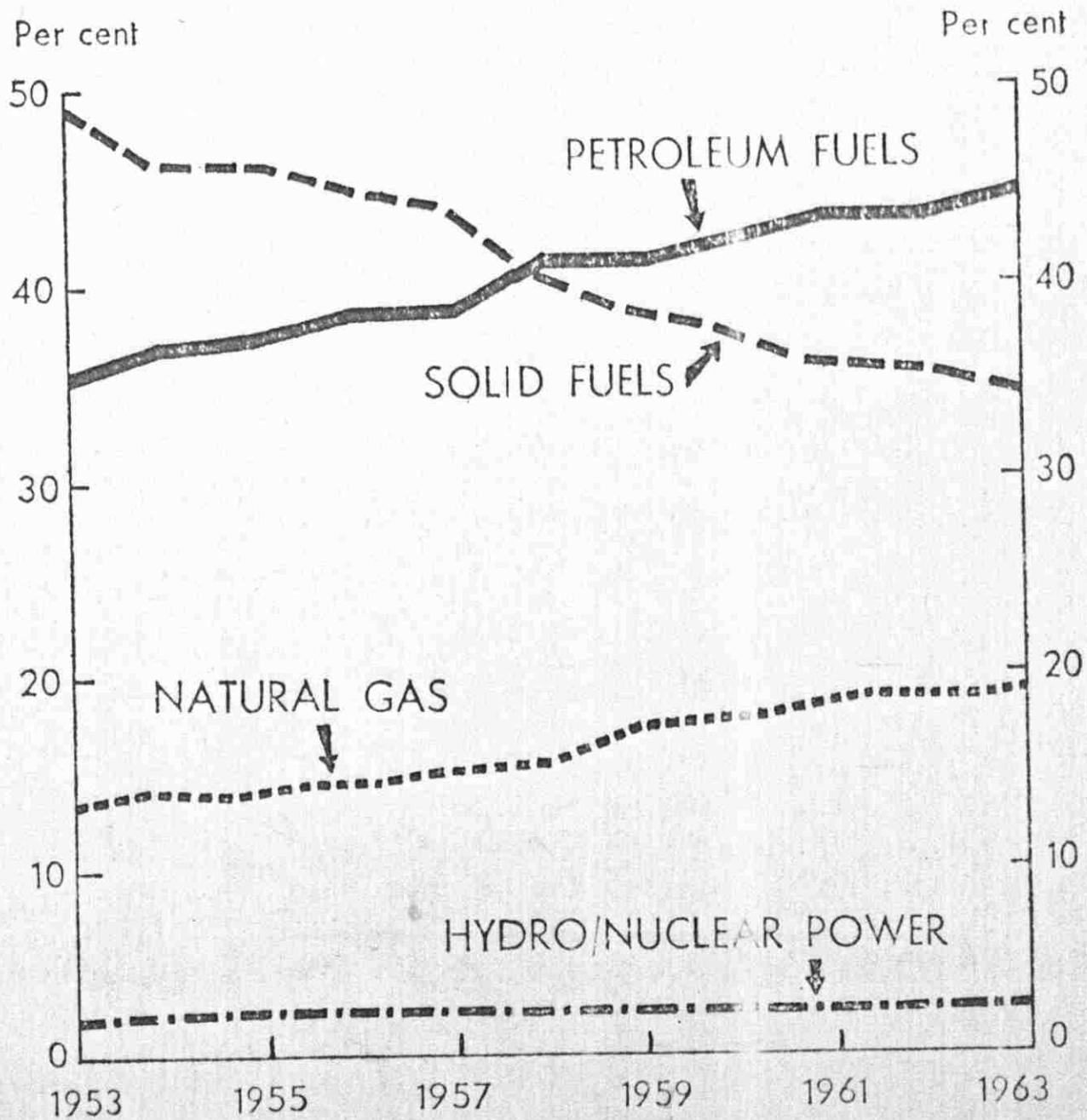
The BEC's energy policy is centered around (1) visualizing an open market for the fuels which the Six must import to survive; (2) relying on free competition to ensure low cost; and (3) relying on a wide diversity of sources to promote security of supply. Two restrictions were implied in this policy: one, the "open market" version excludes the Soviet countries and the "diversity of sources" meant imposing BEC quotas on oil imports from a single source, not to exceed 10% of the total. This energy policy is apparently "bogged

(1) The Oil & Gas Journal, Tulsa, U.S.A., Aug. 12, 1963, p. 85

(2) ibid, p. 88

FIGURE III-1

FREE WORLD: ENERGY DEMAND



Source: Petroleum Press Service, London, July, 1963, p. 246

TABLE III-A

THE USSR'S OIL EXPORTS: 1955-1962

Yr.	Mil. Tons	(1)		(2)		(3)		(3) to
		Soviet Bloc (*)	% of total	Non-Sov. (**)	% of tot.	West. Eur.	% of total	(2)
1955	8.0=100.0% (+)	3.3	41.2%	3.3	41.2%	2.5	62.1%	
1956	10.1=100.0	4.9	48.5	5.1	50.5	3.7	72.5	
1957	13.7=100.0	7.2	52.6	6.1	44.5	4.7	77.0	
1958	18.1=100.0	8.5	47.0	9.6	53.0	6.1	63.5	
1959	25.4=100.0	10.8	42.5	14.5	57.1	10.7	73.8	
1960	33.2=100.0	12.5	37.6	20.6	62.0	14.9	72.3	
1961	41.2=100.0	14.3	34.7	26.8	65.0	16.8	62.7	
1962	45.4=100.0	15.8	34.8	29.6	65.2	19.5	65.9	

(*) Cuba is included under non-Soviet world;

(**) Including Western Europe.

(+) Addition of percentages will not come up to 100.0% due to the "unallocated" portion.

Above quantities derived from Table I-A

down by uncertainty and disagreement, as Committee exports pick
(3)
it over and wonder if it will work."

Now let us assume, for argument's sake, that the EEC Countries have adopted a 10% quota for Russian oil, although this is considered low by some Member Countries, such as Italy, what this will mean in terms of quantities?

In 1962, the latest year for which final figures are available,
(4)
Russian oil accounted for 7.6% of total EEC Countries' imports.

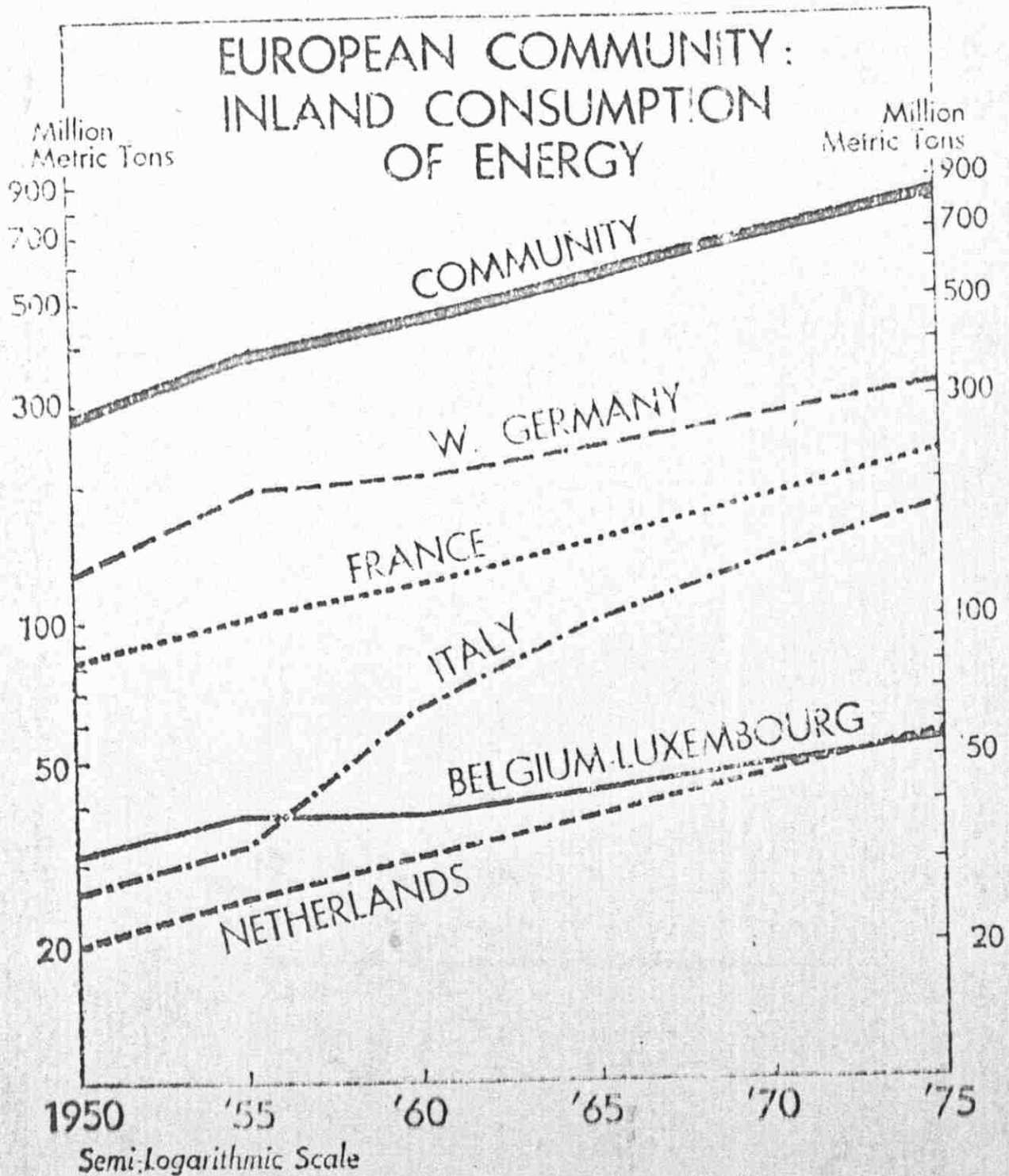
Figure III-2 illustrates the growing consumption of energy in the EEC Countries, while III-3 demonstrates the energy pattern for these Countries and in particular the swelling projected shares for oil for 1970 and 1975.

Table III-B, lists the EEC actual oil imports for 1962 and the projections for 1966, 1970 and 1975 together with assumptions of possible oil imports from Russia at the 7.6% of 1962 and 10%, the proportion suggested by the EEC Commission as the safe upper limit. This will mean that Russian oil to the EEC countries will fall in the following ranges: 14.0-18.4 million tons in 1966; 24.2-31.8 million tons in 1970; and 31.0-41.4 million tons in 1975. If we take the midpoint for 1975 - the year for which we have the Soviet export potential - it amounts to 35.2 million ton/year. The Soviet oil export for 1975 is expected to reach 76.0 millions by 1975, hence EEC imports alone would account for 46.1% of exports to non-Soviet world. In 1962, EEC oil imports accounted for 38.5% of these exports.

(3) *ibid*, p. 85

(4) *ibid*, Sept. 16, 1963, p.84

FIGURE III-2



Source: Petroleum Press Service, London, February, 1963, p. 56

FIGURE III-3

How planners see energy supplies

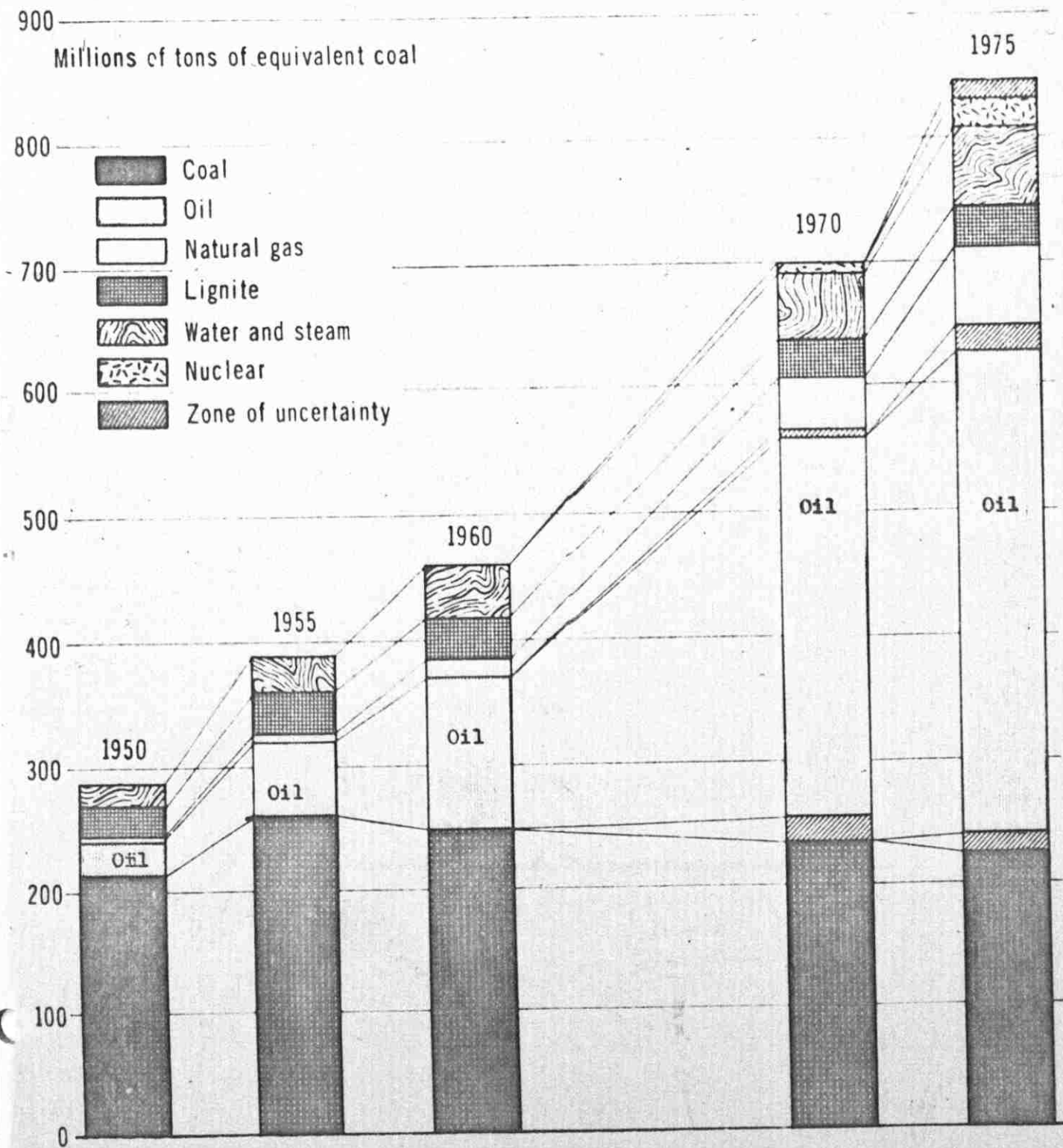


TABLE III-B

EEC OIL IMPORTS: 1962 (Actual) and FORECASTS FOR 1966, 70, & 75

<u>YEAR</u>	<u>MILLION TONS/YEAR</u>	<u>7.6% OF TOTAL</u>	<u>10.0% OF TOTAL</u> (*)
1962 (Actual)	150.0	11.4	15.0
1966	184.0	14.0	18.4
1970	318.0	24.2	31.8
1975	414.0	31.0	41.4

(*) 10% being the quota recommended by the EEC Commission.

Sources: 1962: The Oil & Gas Journal, Sept. 16, 1963, p.84
1966: Petroleum Press Service, London, Dec. 1963, p.458
1970 & 1975: ibid, Feb. 1963, p.56

3. The Soviets' Oil Pricing Policy.

Another factor which is thought to have contributed considerably to promoting Soviet oil exports, is the pricing policy the USSR has geared to the advantage of the non-Soviet customers. Table III-C lists average f.o.b. export prices for crude oil charged by the USSR to non-Soviet together with those to other Soviet countries for the years 1955 - 1962. These prices are shown graphically on Figure III-4.

The two lower curves compare export prices at the Soviet border with the Arabian (Persian) Gulf posted prices. As can be seen on Fig. III-4, in 1955 and 1956, the Soviet f.o.b. prices were some 20¢ higher than the Persian Gulf posted prices. This was reasonable, since this differential was approximately equal to the higher transportation cost to reach the supposedly European markets from the Persian Gulf, over the Black Sea.

In 1957, and presumably as a result of the tighter supply-demand situation during the Suez Canal crisis, prices rose for the Soviet as well as for the Persian Gulf oil.

It was in 1958 when the prices of Russian oil to both Soviet and non-Soviet customers were cut sharply. This reflected the USSR's increased production together with the reduced cost of production (see Figure III-5). As the USSR's oil availability increased, its price for it decreased until in 1960, for example, it charged \$1.56/bbl. to the non-Soviet customers. This compared with a Persian Gulf posting of \$1.80/bbl. Now, if this \$1.56/bbl. is netted back from the Black Sea to the Persian Gulf (i.e., by deducting transportation costs), it would be equivalent to about \$1.25 to \$1.30/bbl., a price which the

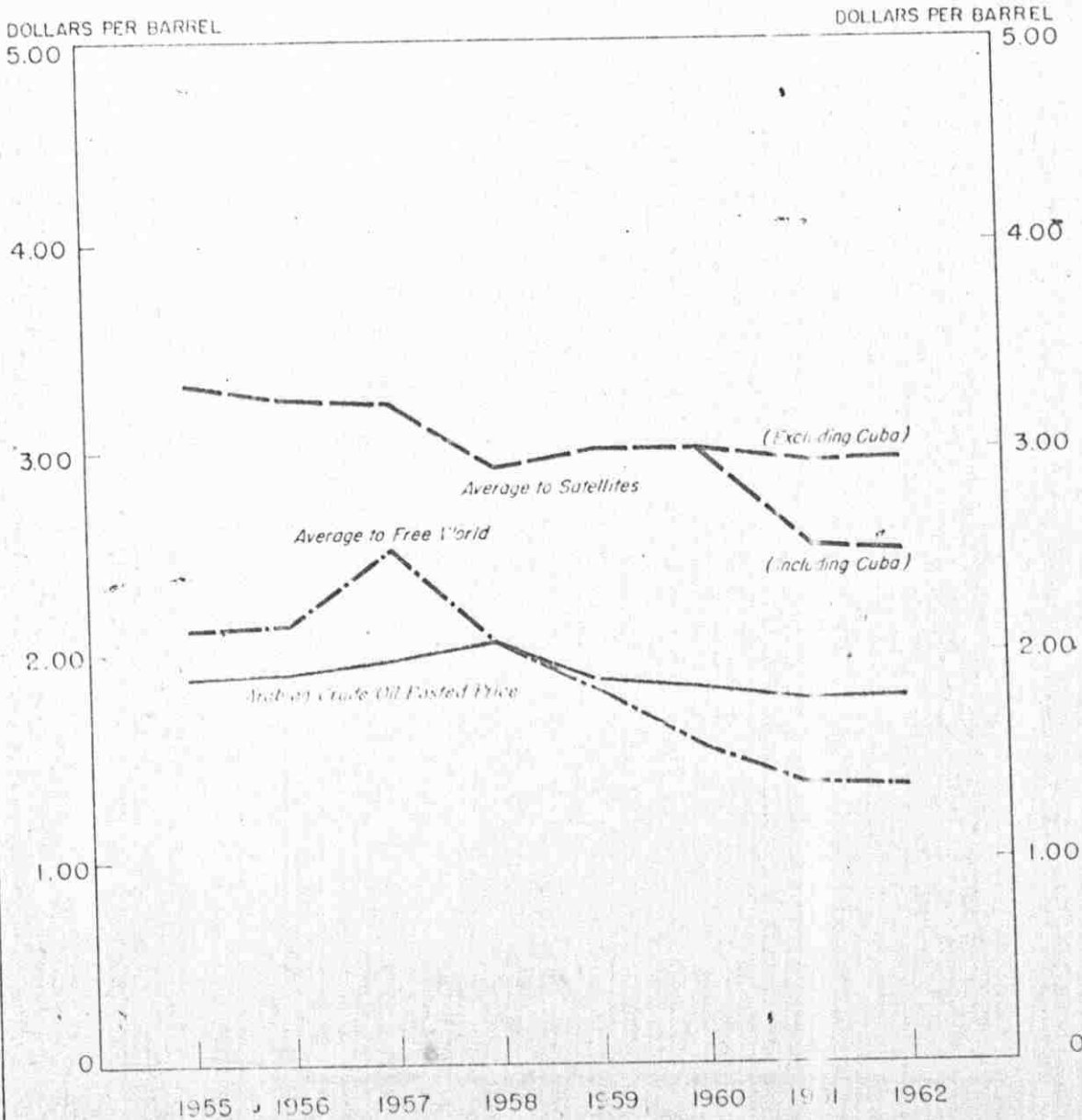
TABLE III-CAVERAGE EXPORT PRICES FOR SOVIET CRUDE OIL - 1955-1962(\$/bbl. f.o.b.)

<u>YEAR</u>	<u>(1)</u> <u>TO NON-SOVIET CUSTOMERS</u>	<u>(2)</u> <u>TO SOVIET PARTNERS</u>	<u>% INCR. (2)</u> <u>to (1)</u>	
1955	\$2.16	\$3.38	+ 56%	
1956	2.17	3.30	+ 52	
1957	2.55	3.28	+ 29	
1958	2.08	2.97	+ 43	
1959	1.88	3.01	+ 60	
1960	1.56	3.01	+ 93	
1961	1.38	<u>Excl. Cuba</u> 2.97	<u>Incl. Cuba</u> 2.54	+115 - +84%
1962	1.36	2.98	2.52	+119 - +85

Sources: Same as Figure III-4.

FIGURE NO. III-4

U.S.S.R. CRUDE EXPORT PRICES



Source: 1955-1960: "Impact of Oil Exports from the Soviet Bloc", Vol. II, National Petroleum Council, Washington, Dec., 1962, p.258
1961: Platt's Oilgram News Service, N.Y., Sept. 7, 1962, Price Schedule
1962: Petroleum Press Service, London, Dec., 1963, p.453.

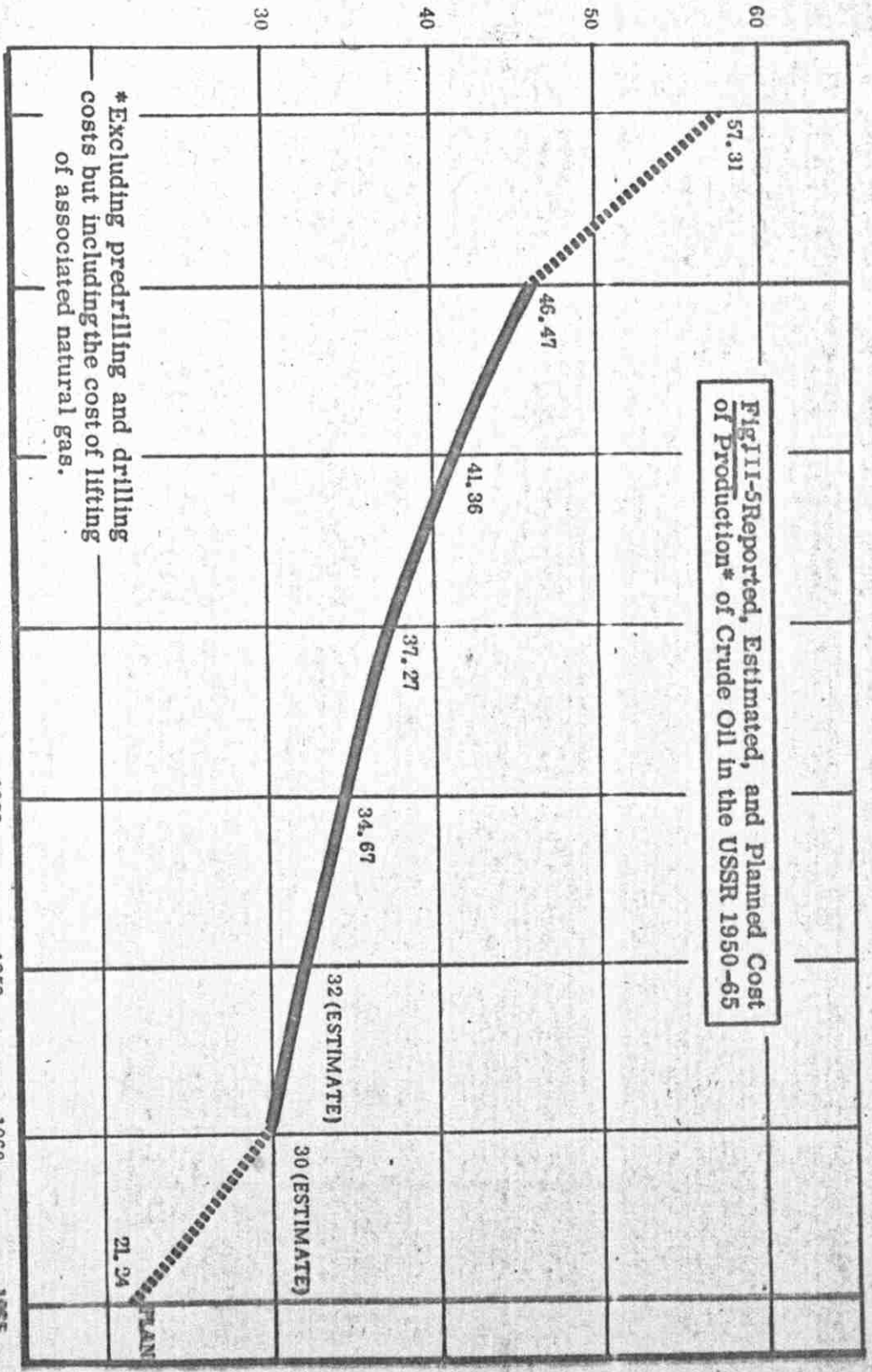


Fig. II-5-Reported, Estimated, and Planned Cost of Production* of Crude Oil in the USSR 1950-65

*Excluding predrilling and drilling costs but including the cost of lifting of associated natural gas.

Source: R.E. Ebel, "The Petroleum Industry of the Soviet Union," American Petroleum Institute, 1961, P. 100

Western oil companies were unable to meet. But, was used as one of the justifications for cutting their Persian Gulf prices (posted) in August, 1960.⁽⁵⁾

There are two plausible reasons for the USSR to cut its prices below the Western oil companies': one, to find sufficient customers in a market suspicious of the reliability of this source, and second, to reflect the decreasing cost of production in the USSR. The latter reason however, does not seem to benefit the Soviet Bloc customers, as demonstrated by the upper curve on Fig. III-4. In 1960, for example, the USSR charged its Bloc partners 93% more for crude sales than it charged non-Soviet customers. This percentage went even as high as 119% for 1962 (see Table III-C). This leads one to think the reduced production cost hardly comes into the pricing formula, or that the price-cuts provided to the non-Soviets are made up by premiums paid by Soviet partners.

In respect to prices charged to non-Soviet customers, the Russians argue that although the USSR sold oil to the West at an average discount of some 17% in 1960, the Western companies sold nearly 600,000 b/d of Middle East oil at an average discount of about 20%. In 1961, they argue further, the average discount on Middle East and Venezuelan crude was 16% to 17% and sometimes as high as 40%.⁽⁶⁾

(5) Middle East Forum, Beirut, Dec., 1962, p.15

(6) Y. Gurov (Chairman of the Soviet Oil Export Organization Sojuzneft-export), quoted in the Journal of Commerce, N.Y. Feb. 11, 1963.

On the other hand, the costs of a barrel of crude oil imported into Germany over the years 1960-1962 offer a look at Soviet oil pricing in a single Western market. Germany has published a list showing the cost of a barrel of crude oil landed in Germany for three years and from various producing countries (see Table III-C₁). As shown on this Table, the price paid for oil imports from the USSR has been the lowest, all the way.

Actually, there are two factors which complicate a comparison between Russian and Western basic oil policies; one, the c.i.f. basis which the Russians generally use, and two, the bilateral character of the transactions. Since these two factors have also been among the promoters of the Soviet oil drive, they merit further discussion.

-63-
TABLE III-C₁

GERMAN LANDED PRICES OF AN IMPORTED CRUDE OIL BARREL
(FOR ROUGHLY COMPARABLE QUALITY)

<u>SUPPLY COUNTRY</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963 (3rd.Qr.)</u>
FRENCH SAHARA	\$ 3.07/bbl.	\$3.07/bbl.	\$2.80/bb.	\$2.57/bbl.
VENEZUELA	2.53	2.47	2.25	2.20
IRAQ	2.82	2.56	2.46	2.36
SAUDI ARABIA	2.74	2.60	2.44	2.41
SOVIET UNION	1.71	1.71	1.72	1.70

Sources: 1960, 1961 & 1962: Platt's Price Service, N.Y., March 27, 1963
1963 (3rd. Quarter: German Oil Information Service, Dec. 2, 1963

4 - The Abundance Of Tanker Tonnage

In Chapter Two we discussed the Soviet Union's oil transportation capabilities and concluded that at the present the USSR owns a relatively small percent of the world fleet but that by 1965 it will be self-sufficient up to at least 85% of its projected requirements the remaining 15% to be supplied by the buyers.

Meanwhile, the USSR has been taking good advantage of the surplus tanker tonnage and the depressed tanker rates, hence it has been enjoying a considerable room for maneuver.

As the USSR conducts its sales on a c.i.f. basis, it absorbs the freight involved in its overseas shipments and, it follows that the lower the tanker rates are, the cheaper it can sell it to customers at destinations, if it sees fit, or else it would realize a higher margin.

Table III-D attempts a netting-back of some Russian c.i.f. deals to equivalent Persian Gulf f.o.b. prices (c.i.f. minus freight cost) then compares these net-backs with the Gulf f.o.b. charged by the oil companies. The freight rate used in netting back was Scale # 3 minus 50% which is in line with the tanker market for about 85% of the time (See Fig. II-9)

As can be seen from columns 9 and 10 in Table III-D, the netted back figures have been consistently lower than the Persian Gulf postings. This certainly reduces the attractiveness of Middle East oil, which will be discussed later.

It suffices here to mention two points: first, the surplus tanker tonnage and the depressed rates have helped the Russians reduce their c.i.f. prices, and second by 1965, when the Russians become self-sufficient, the tanker market will become more depressed because of the sharp decrease in Soviet chartering of non-bloc tankers, recently around

Table III-D

PRICE INFORMATION-IMPORTS OF SOVIET CRUDE OIL
(LATE 1961 - 1962)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
IMPORTING COUNTRY	DELIVERY DATE	TYPE OF CRUDE	GRAVITY API	PERCENT SULFUR	QUANTITY (THOUSAND BARRELS)	F.O.B. BLACK SEA (\$/BARREL)	C.I.F. (\$/BARREL) A/	ESTIMATED EQUIVALENT PERSTIN GULF F.O.B. (\$/BARREL) B/	APPROXIMATE EQUIVALENT PERSTIN GULF POSTING (\$/BARREL)
USSR	1962	Tuymazza + Sokolovo	32.5 - 35.5	0.60 - 1.50	138	-	2.23	-	1.80 B/
	October 1961	Sokolovo	37.0	0.44 - 0.47	557	-	1.93	1.49	1.86 B/
		Mukhanova	37.6	0.48	173	-	2.06	1.62	1.86 B/
		Tuymazza	34.8	1.26	173	-	2.00	1.55	1.80 B/
	October 1961	Ekhabi (Sakhalin)	32.0 - 33.0	0.28 - 0.33	277	-	1.94	1.48	1.61 C/
	November 1961	Mukhanova	38.2	0.55	324	-	1.50	1.46	1.88 B/
	November 1961	Sokolovo	37.0 - 38.0	0.48 - 0.52	540	-	1.91	1.47	1.86 B/
	November 1961	Mukhanova	40.6	0.79	179	-	2.02	1.59	1.80 B/
	November 1961	Tuymazza	34.8	1.37	242	-	2.00	1.55	1.80 B/
	November 1961	Ekhabi (Sakhalin)	32.6	0.30	70	-	1.95	1.49	1.61 C/
December 1961	Turkmen	31.8	0.41	236	-	1.93	1.47	1.59 C/	
December 1961	Mukhanova	38.2	0.54	141	-	1.93	1.47	1.88 B/	
December 1961	Mukhanova	40.3	0.29	186	-	2.03	1.49	1.60 B/	
December 1961	Mukhanova	40.3	0.46	281	-	1.95	1.49	1.61 B/	
December 1961	Turkmen	33.0	0.46	281	-	1.92	1.48	1.86 B/	
December 1961	Sokolovo	37.0	0.50	218	-	1.92	1.48	1.88 B/	
December 1961	Sokolovo	38.3	0.52	205	-	1.92	1.46	1.88 B/	
December 1961	Sokolovo	38.3	0.52	205	-	2.01	1.56	1.80 B/	
December 1961	Tuymazza	34.2	1.45	177	-	2.01	1.56	1.80 B/	
FRANCE	1962	Romashkino	33.0	1.56	5,180	-	2.15	1.40	1.80 B/
		Mukhanova	34.0 - 34.9	0.37	-	-	-	-	-
		Tuymazza	34.0 - 34.9	0.37	-	-	-	-	-

A/ Reported C.I.F. price netted back to Pas Tanura at Scale #3 minus 50 percent.
B/ Reported crude at \$1.80 per barrel for 34.0 - 34.9 API, escalated at 2¢ per barrel per full degree increase in API.
C/ Reported crude at \$1.59 per barrel for 31.0 - 31.9 API, escalated at 2¢ per barrel per full degree increase in API.

Source: "Impact of Oil Exports from the Soviet Bloc", Vol. II, National Petroleum Council, Washington, DC., U.S.A. 1962, p. 266

(7)

1.5 million deadweight tons.

5 - The Bilateral Barter Arrangements:

In addition to the preceding factors which have worked to promote Soviet oil exports, there is another: the bilateral barter arrangements. These arrangements have apparently been of mutual advantages to the Russians as well as to the countries they make these deals with: For the former, oil is a highly convenient means of paying for their essential imports; and for the latter, particularly the industrialized nations of the West, the Soviets offer an expanding market for their manufactured goods of all kinds. A few illustrations would help clarify this aspect.

a - Towards the end of 1963, Italy's ENI concluded an agreement with the Russians under which it will purchase 25 million tons of Russian crude oil over the years 1964-1970. In return the Soviet Union will receive synthetic rubber, plastics, chemical products, machinery, fiber goods, fertilizers and oil industry equipments.⁽⁸⁾ The deal is valued at more than \$200 million and the price per barrel is estimated to be less than \$120.⁽⁹⁾

b - France is currently negotiating a trade agreement with the Soviet Union to expand France's exports to Russia. It is reported that the French negotiating team is offering to sell fertilizer plants, artificial textile factories, paper mills, Renault Cars, sugar refineries and ships. The major import to be taken by France in exchange would be oil, anticipated to reach eventually a total volume of 3 million tons annually.⁽¹⁰⁾

(7)-Petroleum Intelligence Weekly, N.Y., June 10, 1963, P.6

(8)-Petroleum Press Service, London, Dec. 1963, P. 474

(9)-Wall Street Journal, N.Y., Nov. 15, 1963

(10)-The Economist, London, Jan. 25, 1964, P. 330.

The French justification is apparently threefold: first, the supply of oil from the Sahara cannot be counted upon as totally secure; second, the low price at which Italy, for example, has obtained Soviet Crude oil; and third, the need for a rapid recovery in French exports.⁽¹¹⁾

C - Under a newly-signed 1964 trade agreement between Russia and Japan, the latter will import 74,000 b/d of Russian oil and export to the USSR nine 35,000 dwt tankers, two LP. Gas tankers, and 35,000 tons of carbon steel pipes.⁽¹²⁾

Bilateral arrangements with such industrialized countries then, lead one to think that these countries need the Russian market as much, if not more, than the Russian oil. This is typical of the European industrialist who has two basic interests at heart; one, to buy energy as cheaply as possible and, second to increase his export sales "since he is faced with rising labor costs and a tendency toward reduced output per man hour due to union activity and the general attitude of individual workers. There are more jobs than men to fill them in Western Europe, so it is a seller's market with the usual implications. Thus fuel and low-cost incremental production is regarded as essential⁽¹³⁾

The Soviet Union also barter oil for fish with Iceland, for sugar with Cuba and the latest was for iron, ore and coffee with Brazil.⁽¹⁴⁾ Such deals would relieve those trading partners of embarrassing surpluses. If such a potential importer does not have something to barter for, nor foreign exchange to spare, the USSR accepts local currency. In the case of India, for example, payments have been made in rupees. Only the Soviet Union is willy to do that.⁽¹⁵⁾

(11) *ibid*

(12) Platt's Oilgram News Service, N.Y., Feb. 13, 1964

(13) World Petroleum, N.Y., Jan. 1964, P. 27

(14) Petroleum Intelligence Weekly, N.Y. Sept. 23, 1963, P.3

(15) Platt's Oilgram News Service, N.Y., March 20, 1963

Probably this is one reason why the Soviet Union is asking for an increase in its price to shipments to India, which will be discussed shortly.

This brings us to the end of our brief review of the favorable marketing factors the USSR's exports have been enjoying, or expects to enjoy. However, there are some limiting factors which merit study.

B - The Possible Limitations:

1 - Narrowing of The Gap Between Soviet and Major Company Oil Prices:

In the preceding section of this chapter we have mentioned that offering Russian oil at below the going price has been one of the favorable factors for expanding present markets or penetrating into new ones. This, however may not last very long mainly because some oil companies have become more competitive. A recent example is the Texas Oil Company's and France's Sovac deals for supplying Morocco with about 75% of its oil imports during 1963 for about \$1.94 per c.i.f. barrel. The Soviet Union, through bilateral pact, has accounted for the remaining 25% charging a c.i.f. price of \$ 1.89 per barrel. If the Texaco's shipments were netted back to Sidon price, assuming a freight rate of scale minus 50%, it would mean a discount of 47 ¢ per barrel or 21.7% of the Sidon posted price of \$ 2.17 per barrel.⁽¹⁶⁾ Other deals with relatively heavy discounts were made by Compagnie Francaise des Petroles (CFP) and Texaco in meeting a part of Tunisia's oil demand for 1964. The deals call for a 50 ¢/bbl. and a 42 ¢/bbl. discount, respectively.⁽¹⁷⁾ These discounts bring the c.i.f. price per barrel to about only 5¢ per barrel above a comparable barrel from Russia.

(16) Op. Cit., Dec. 23, 1963, P. 2

(17) *ibid*

On the other hand, the Soviet Union appears to be seeking more commercial prices in their recent trade agreements with Brazil, Japan, and Morocco⁽¹⁸⁾. India's current negotiations with the Soviet Union is another example.

Under its 1961's 4-year trade agreement with Russia, India had to pay c.i.f. prices with the understanding that the incorporated freight cost would be "as if" the oil were shipped from Ras Tanura and not from the Black Sea. Now, and towards the end of the current trade agreement, the Russians are seeking a change in the freight rate basis, if the agreement is to be renewed. The change calls for considering freight cost from the Black Sea to India rather than from Ras Tanura to India, which in effect would increase prices. Assuming a freight rate of Intascale flat, freight cost from Odessa to Bombay is \$4.92 per ton in comparison to \$1.98 from Ras Tanura to Bombay⁽¹⁹⁾.

2 - The Increasing Share Of Crude in The Total Soviet Exports:

The USSR has been increasing the crude oil share of its total exports. Table III-B indicates that this share increased from 45% to 59% in 1962. It is also reported that in 1963 crude oil accounted the entire rise in Soviet Crude oil.⁽²⁰⁾ According for practically/to the same Weekly, this shift is attributed to the current shortage of Soviet refining capacity.

If this shift keeps on, it could limit the expansion of Russian exports due to the limited number and capacity of non-Soviet independent and government refineries willing or able to refine Soviet oil.⁽²¹⁾

(18) ibid, March 30, 1964, P.6

(19) The Oil Gas Journal, Tulsa, Feb. 17, 1964, P. 84 and Plath's Price Service, N.Y., Nov. 21, 1963

(20) Petroleum Intelligence Weekly, N.Y., Mar. 30, 1964, P.6

(21) ibid

TABLE III-B

COMPOSITION OF SOVIET OIL EXPORTS

	<u>1959</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>
CRUDE	45%	53%	61%	59%
PRODUCTS	55	47	39	49
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

Source: 1959 & 1960: Petroleum Press Service, Dec. 1961, p.486

1961 & 1962: ibid, October, 1963, p.367

3. The USSR does not own distribution facilities in the importing countries:

The fact that oil distribution facilities are owned by the Western oil companies; the bulk being in the hands of the Major International and the remainder in the hands of the big independents, places a further possible limitation on potential oil imports from Russia. The alternatives open before the Russians to overcome this limiting factor would be either set up their own distribution facilities, or acquire existing ones (presumably from independent or national oil companies, or lastly, to persuade the governments of importing countries to force the international oil companies to handle Soviet oil, and if they refuse, to nationalize their facilities, similar to what happened in Cuba and Ceylon. (22)

4. The International Oil Companies' never-ceasing fight against the Soviet Oil Export Drive:

This fight has been taking different shapes, significantly by emphasizing to Soviet oil importing countries the risks involved in depending upon this source. The oil companies' argument goes something like this: if the Russians should decide to cut down on their exports, to a particular heavy importer of Soviet oil, or shift its exports to new areas, or take some similar arbitrary action, this country might find itself suddenly hunting for a new supplier for all, or part of its demand. The oil companies argue further, that "in times of surplus oil and shipping, the country may find other suppliers to fill its needs. But in times of crisis or shortage of oil and shipping, other suppliers could not be expected to fill the gap left by the withdrawal of Soviet oil." (23)

Another weapon the oil companies have been using is to make heavy discounts to meet or come close to the Russian offer. We have mentioned

(22) op.cit., Oct. 21, 1963, p.7

(23) New York World Telegram & Sun, March 24, 1962, p.30

previously Texaco's and CFP's deals, the former with both Morocco and Tunisia, the latter with only Tunisia.

The third weapon is to displace at least some of the Soviet exports in some of Russia's major markets. Standard Oil of New Jersey (ESSO) has been able to do so by signing a 5-year agreement with Italy's ENI. The agreement calls for supplying the latter with 48,000 b/d. This was aimed
(24)
at reducing Italy's reliance on Soviet oil.

Another effort along the same line has been to persuade the EEC countries to place an importing quota to not exceed 10% of a single member's total imports. This, the oil companies have not been able to achieve as yet.

5. The Emergence of New Entrants into the Same Markets:

Figure III-6 illustrates graphically the role being played by new entrants into the EEC market, namely, the Sahara and Africa.

Until 1959, the Sahara oil did not account for any imports to speak of. This however, kept climbing steadily to cut to itself a respectable slice of this market. Africa, on the other hand, showed the first signs of invasion early in 1961. Again, it has imposed itself on the market mainly because of its proximity to Europe. We will not be surprised to see, a few years from now, Africa's exports (mainly from Libya) taking still a bigger share of this developing and most important consuming market.

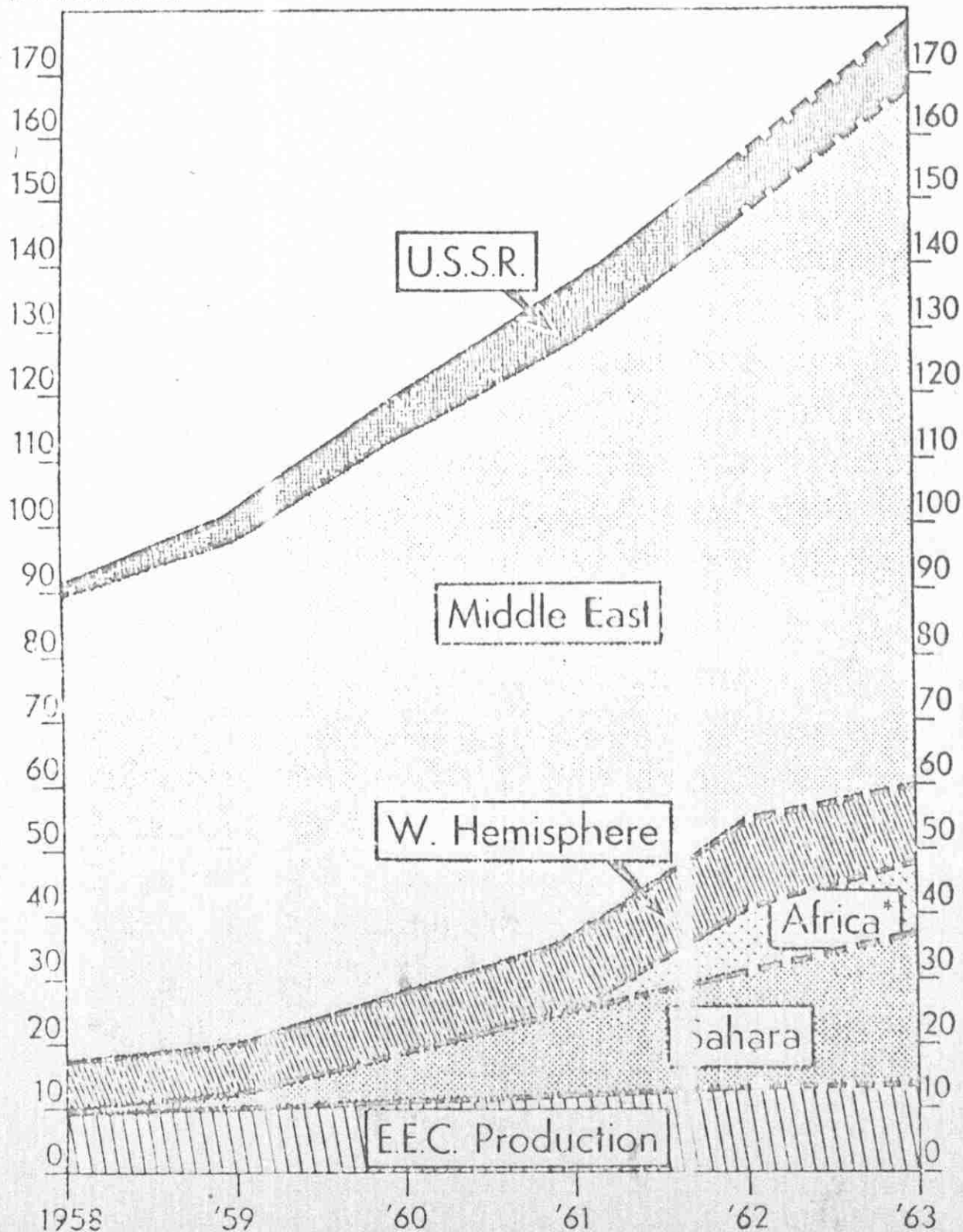
6. Other Factors:

Other plausible, but difficult-to-substantiate limiting factors on Soviet oil are:

Figure III-6

E.E.C.: SUPPLY OF CRUDE OIL BY SOURCES

Mill. M. Tons.



Source: Petroleum Press Service, London, Dec., 1963, p459. Provisional

*excluding Sahara

a. Soviet freedom of action in pricing may diminish as the USSR accumulates a stock of existing contracts with customers who would complain unless their own contracts were revised to be in line with new ones being made;

b. The USSR may reduce its expansion drive to avoid the growing resentment of producing countries' people who may look at this drive as a reducing factor of their revenues from oil;

c. The saturated-with-sellers market. In the sense that it may be difficult for the USSR to acquire a market of the size of Cuba, for instance, but will continue expanding its present markets or acquiring marginal ones. However, France's potential sponsorship of this oil, discussed earlier, might invalidate this theory.

CHAPTER FOUR

"THE USSR'S OBJECTIVES BEHIND THIS OIL EXPORT DRIVE"

INTRODUCTION

In the preceding Chapters we reviewed the development of the Soviet Union's oil industry with emphasis on its oil export capabilities. We also analyzed the promising as well as the limiting factors affecting these exports on the demand side. The present chapter will attempt to examine the USSR's objectives behind this oil export drive.

At the outset of this study we mentioned that the big question has always been whether the Soviet oil export drive should be explained in economic or in political terms. We believe that it is difficult to draw a sharp line between the two, particularly when the Country under analysis is the Soviet Union whose boss, Mr. Khrushchev, is quoted to have said in 1955 "We value trade least for economic reasons and most for political reasons".⁽¹⁾

Broadly speaking, the Soviet objective in a particular oil transaction can be inferred from the economic status of the trading partner. In its transactions with the economically underdeveloped countries, particularly with those from which the USSR can get little or nothing of economic value in direct return, the USSR's objective is probably political, since it would be mainly concerned with the extension of Soviet influence.

(1) Petroleum Intelligence Weekly, N.Y., March 26, 1962, Supp. p.2

In transactions made with the developed and industrialized countries which can provide goods more cheaply than the USSR (cheaper in the sense that it saves the Russians the costs involved in research and manpower), and in transactions with underdeveloped countries which are able to pay in hard currency or in goods the USSR is in real need of, the Soviet objective would more likely be an economic one, since it would mean an acquisition of a new market.

A. THE POLITICAL OBJECTIVES:

These objectives have manifested themselves in the varying techniques the Russians have been using to displace the Western oil companies. Among these techniques - which have been discussed in an earlier Chapter - are:

1. The offer of more favorable terms, of which most important so far has been the offer of lower prices;

2. The bilateral barter arrangements that have relieved trading partners of surplus commodities; and,

3. The sale of Russian oil for local currencies, such as the deal with India. This, the Western oil companies have been unwilling or unable to meet.

These techniques are thought of to be politically-justified because:

First, the price discrimination between sales to Bloc and those to Non-Soviet Bloc countries (discussed and illustrated graphically in the preceding Chapter.), leaves no room for an economic justification;

Second, when an importing country does not possess refining or handling facilities of its own, it has, in certain cases, insisted on the use of facilities built up by the Major oil companies. When these companies refuse, their facilities are either expropriated, as in the case of Cuba, or nationalized, as in the case Ceylon.⁽²⁾ When the Major oil companies operating in India refused in 1960 to do the refining of Russian crude oil, India negotiated for supplies of Soviet oil products while new state-owned refineries, financed by Soviet loans, were put under construction by Soviet engineers.⁽³⁾

Third, the barter deals, made with countries frequently dependent on sales of one or a few commodities for their whole economy, chronically short of hard currencies with which to buy/^{on} the world market, look very advantageous to these countries..."that is until the Soviets dump the commodity on the open market and make it virtually impossible for the country to market the rest of it at a reasonable price."⁽⁴⁾

(2) All assets of Shell, Caltex, and Esso in Ceylon are supposed to have been taken over by State-owned Ceylon Petroleum Company, as of Jan. 1, 1964, according to Petroleum Intelligence Weekly, June 10, 1963, p.7

(3) Washington Post, Washington, U.S.A., Nov. 24, 1960.

(4) Congressional Record - Senate, Washington, D.C., May 10, 1962, p. 7571.

B. THE ECONOMIC OBJECTIVES:

The other objectives of the Soviet oil export drive are very well summarized in the Soviets' own words, in a statement given at the Fourth Arab Petroleum Congress in Beirut, Nov. 5-12, 1963. It said, among other things, "On earnings from the sale of oil Soviet foreign trade organizations purchase from industrially developed countries machines, equipment, ships and other industrial goods.." (5) This must have been particularly painful to the Western oil companies because the Soviets, in pursuing the drive under these terms, are taking profitable markets away from their Western competitors. Now, what are the implications of these economic objectives:

The Russians have been obtaining economic gains from exchanging a commodity, which is easily transported, universally used, and can be processed in existing facilities - over and above the fact that is relatively cheap to produce at home - for other commodities that are relatively dear to produce at home. The Soviet Union, in its trading with Western Europe, for example, seeks industrial goods that it cannot produce in sufficient quantity at home, or as cheaply, as it can buy them abroad. The Soviet import list includes: chemical plants, refineries, construction machines, tankers, and steel pipe for pipelines. Thus, "The Soviets are getting sophisticated industrial goods they need, and at rock-bottom cost." (6)

(5) "The Basis and Aims of Soviet Petroleum Exports", Mimeo. sheets distributed by the Soviet Delegation to the Fourth Arab Petroleum Congress, Beirut, Nov. 5-12, 1963 - p.1

(6) World Oil, Houston, Texas, Nov. 1962, p. 10

What is really helping the Russians is the fact that terms of barter trade between Europe and the USSR have ^{been} /changing from bargain-hunting for cheap imports to market-hunting for expensive exports. In so far as Europe is concerned, the key to further barter deals with the Russians is not in what the latter can supply, but in the industrial production they will take back in exchange. After the loss of Latin America as a plausible credit risk, Europe needs market for its industrial goods in order to keep its factories full and its people employed. This has led to a switch in the Soviet-European trade relationship. Now Europe needs the Russian market, not the Russian crude. ⁽⁷⁾ The present and potential trade agreements with Italy and France, described briefly in the previous Chapter, indicate that there is much truth in this shift.

The oil companies on the other hand, are unable to compete with the Russians in as far as bilateral barter arrangements are concerned, whether with underdeveloped countries which have local surplus products they want to rid/^{get} of, or with the industrialized countries which are looking for markets. The Russians stand to reap an advantage from this situation.

Another example of how the Russians penetrate into markets that are traditionally the preserve of the Western oil companies is their acceptance of local currency in payment of Soviet shipments.

The Soviet Union has been the only exporter of oil that is willing and able to provide this term of trade. It has been selling to India, as one case, for rupees, which has been of great help as India is always short of foreign exchange.

(7) *ibid*, p. 17

To summarize, the Soviet Union achieves both political and economic objectives through its ^{oil} export drive. With underdeveloped countries, its transactions are geared towards achieving political objectives by entering into trade agreements with these countries to either supply a critical portion of their petroleum requirements or purchasing a critical portion of their exports. This puts the Russians in a favorable political position in those countries. This plus the fact that the Soviet Union practices price discrimination to the disadvantage of the Soviet-Bloc countries and Krushchev's statement that they value trade least for economic reasons and most for political ones, lead one to emphasize the political objectives behind the Soviet oil export drive. Moreover, the enormous advantages the Soviet Union has been achieving by paying for industrial goods in oil shipments rather than hard currency, illustrate the economic role of the Soviet oil penetration.

CHAPTER FIVE

IMPACT OF SOVIET OIL EXPORT DRIVE ON MIDDLE EAST OIL EXPORTS

INTRODUCTION:

In 1963 the Middle East accounted for 26.4% of total world oil production⁽¹⁾ and the direct payments made by the oil companies to its four main oil producing countries⁽²⁾ amounted to \$1,672 million⁽³⁾ which constitute about 95% of their respective budgets. This plus the fact that Middle East oil exports accounted for 48.8% of total world oil exports, makes it imperative for us to take time off and examine the possible impact of the growing Soviet oil exports on the oil from the Middle East. The following will be devoted to an analysis of this impact.

The Soviet oil exports and the trading techniques, which we have discussed in the previous chapter, have affected the oil from the Middle East by:

- A- Contributing to cutting its posted prices in 1960;
- B- Taking away some of its share in the growing world demand;
- C- Reducing the bargaining power of the Middle East producing countries vis-a-vis the operating companies; and
- D- Reducing its direct and indirect revenues from what they otherwise would have been.

The balance of this chapter will be an elaboration of these four major points.

A- THE PRICE CUTTING OF 1960:

With the development of its economy, India has become a heavy

(1) Petroleum Press Service, London, Jan. 1964, P.5

(2) Iran, Iraq, Kuwait, & Saudi Arabia

(3) Petroleum Intelligence Weekly, Jan. 27, 1964, P.3

importer of crude oil. Prior to 1960, India's traditional source of supply was the Persian (Arabian) Gulf and its refineries were financed and built by the Western oil companies.

India, however, just like any other developing country, is interested in oil at the cheapest price. So when, in 1960, Russia offered it crude oil at prices as low as 20% below than the price of the Persian Gulf crude, India became interested, particularly when the Russians expressed a willingness to accept rupees. The Western Companies required a more stable currency.

The Indian government found the deal tempting and proposed to the Western oil companies to process the Russian crude in their India-based refineries.

This proposal was very similar to Cuba's earlier one to these companies, except that this time the Western companies took a new and drastic approach. They offered a 12.5% discount on Persian Gulf oil. The Indian government accepted this arrangement and, in renegotiating the Russian offer, obtained for rupees refined products, from Black Sea ports, apparently at about a 20% discount from f.o.b. posted prices. (4)

The Indian negotiations took place at a time of oil surplus when the oil companies were already extending considerable discounts from posted prices in order to boost their sales. With the royalties to the governments of the producing countries calculated on the basis of posted prices, the oil companies were already tempted to reduce these prices, but were reluctant to do so for fear of unfavorable political reactions in the producing countries. Now, with the threat of Russian competition in India and the pressure brought by the Indian government to lower oil prices, the oil companies justified for themselves the lowering of the posted prices for crude in the Persian Gulf by 7%. (5)

At this time, there were three deals at play: one, that of the

(4) World Petroleum, N. Y., Sept. 1960, P.52.

(5) The Oil and Gas Journal, Tulsa, Sept. 1962, P.74

Russians in attempting to force their way into a new market; two, that of the Indians' pressing for lower prices, and three, that of the oil companies in cutting their losses by passing on to the governments of the producing countries the reduction in receipts resulting from de facto discounts from prices as posted. In effect then, it was the Persian Gulf producers who lost the most. OPEC (organization of Petroleum Exporting Countries) was the end result and the reaction to this cut. (6)

B- SHARE IN GROWING MARKET:

As indicated in Table V-A, the Middle East oil exports accounted for 50.0% of total oil world exports in 1959. In that year, the Soviet Union accounted for only 3.6% of this total.

In 1962, the share of the Middle East dropped to 48.8% of the world total, while the Soviet Union climbed to 5.3%.

Moreover, Figure III-6, a duplicate of which is also inserted in this chapter, illustrates that in 1958, the EEC imports of Russian oil were considerably low, swelling in volume to reach about 8% of the total imports.

Two conclusions can be derived from these attachments:

1. Taking the world exports as a whole, had it not been for the USSR's oil drive, it would have been more likely that the Middle East oil exports take a bigger slice of the pie:
2. Western Europe, which is the traditional market of the Middle Eastern oil, has been increasing its imports from Russia, among other sources, at the expense of the oil from the Middle East.

(6) Middle East Form, Beirut, Dec., 1962, P.13

TABLE V-A

WORLD OIL EXPORTS BY AREA - 1959 - 1962

(IN MILLION TONS/YEAR AND IN PERCENT OF TOTAL)

AREA	1959		1960		1961		1962		AVG. % FOR 4 YEARS
	AMOUNT	% OF WORLD AMT.	AMT.	%	AMT.	%	AMT.	%	
Middle East	199.0	50.0%	229.0	51.0%	247.5	50.6%	273.0	48.8%	50.1%
Venezuela	134.0	33.7	141.0	31.4	137.0	28.0	159.0	28.4	30.4
USSR	14.5	3.6	20.6	4.6	26.8	5.5	29.6	5.3	4.8
Rest of World	50.5	12.7	58.4	13.0	76.7	15.9	98.4	17.5	14.7
TOTAL	398.0	100.0%	449.0	100.0%	488.0	100.0%	560.0	100.0%	100.0%

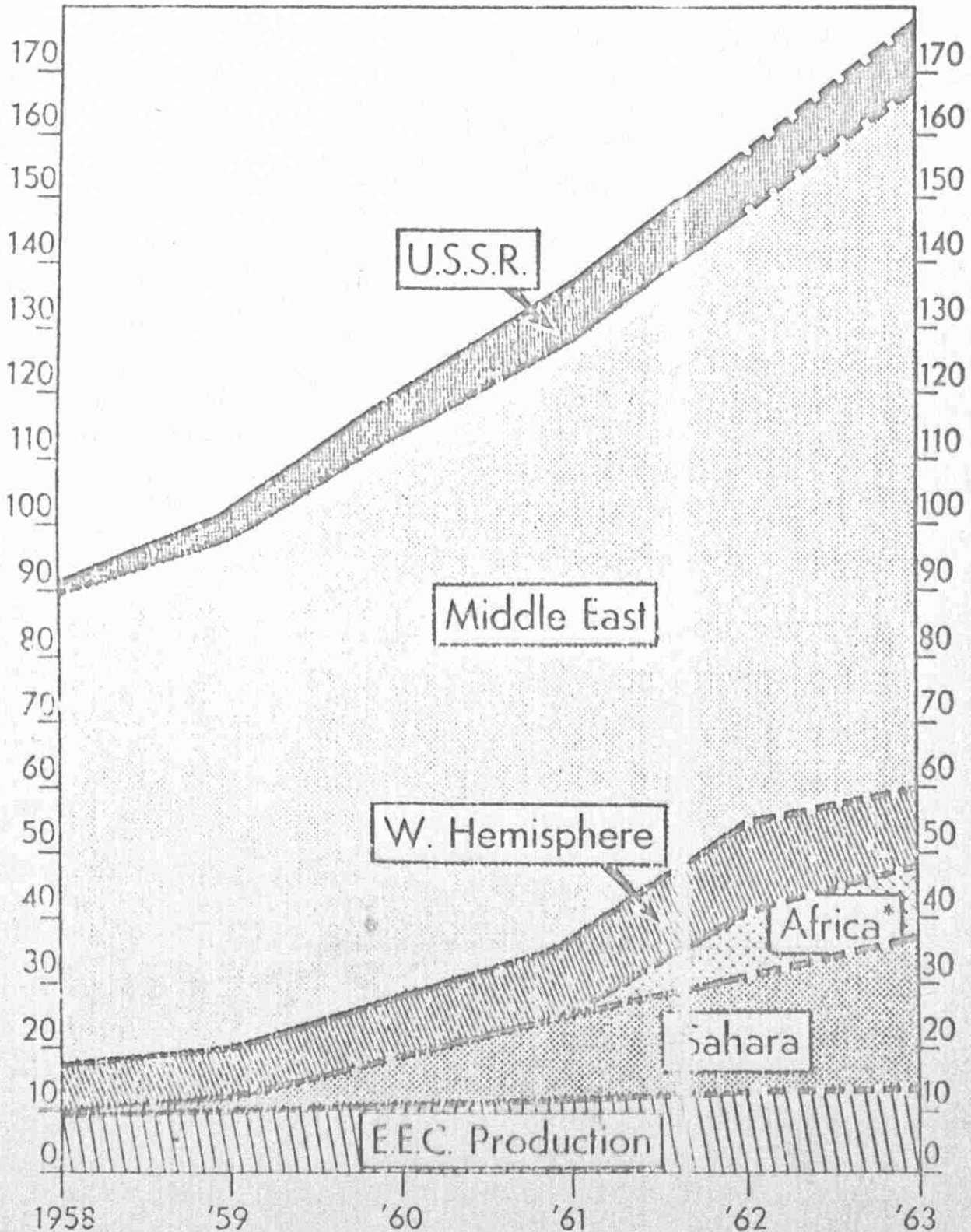
SOURCES: USSR: Derived from Table I-A

Others: "Statistical Review of the World Oil Industry", British Petroleum Co., Ltd., London, 1959, 1960, 1961, and 1962.

Figure III-6

E.E.C.: SUPPLY OF CRUDE OIL BY SOURCES

Mill. M. Tons.



Source: Petroleum Press Service, London, Dec., 1963, p459. Provisional

C- BARGAINING POWER-

One of the immediate consequences of the current Soviet oil availability as a competitor to oil from the Middle East is that it somewhat weakens, understandably, the bargaining position of the Middle Eastern producing countries vis-a-vis the Western oil companies as well as the consuming countries of the West.

Now, in the event of future bargaining difficulties the availability of Soviet oil to the Western Europe world makes the producing governments of the Middle East hesitate very much to break entirely with the Western oil companies.

It always used to be, and to a more limited extent now, the Middle East producing countries which threatened to cut the flow of oil into the West in case an issue is not settled in their favor. Now, the picture has considerably changed, due partly, if not entirely, to the emergence of the Soviet oil as a huge potential oil exporter.

Surely, there are other factors such as new sources of energy (gas & nuclear) and the rapidly expanding African oil production, which have led to a reduction in Middle East bargaining power, but Russia with its advantageous techniques, from the point of view of the European consumer - producer, offers the more - felt impact.

D- REDUCTION OF DIRECT AND INDIRECT REVENUES-

It is a difficult task to determine in absolute figures the direct losses the Middle East has suffered as a result of the Soviet oil drive because of the different variables involved. These would include, the emergence of new suppliers other than the Soviet Union; the importer's arbitrary decision to diversify its sources of supply; and the changing pattern of energy consumption of a particular importing country. However, the U. S. National Petroleum Council (NPC) has attempted to estimate these direct losses. Their argument goes something like this:

Let us select 1953 as the base year, since it was the year Stalin died and marked a change in emphasis in Soviet economic policy from maximum autarky to a growing reliance upon foreign trade to accelerate the economic development of the Bloc. (see Fig. V-1). In 1953, the Soviet oil exports were confined to Western Europe and equaled 1.9% of demand in that important area. In 1963, the Soviet oil supplied about 8% of Western Europe's growing demand and penetrated into new areas such as Free Asia, Africa and Western Hemisphere.

Now, if the Soviet Bloc exports to Western Europe since 1953 had remained inline with their percentage share in that year, the NPC argues, the 1963 total Bloc exports would have been only 112,000B/D or 628,000 B/D less than the actual total. To the extent that Soviet Bloc oil exports reduced the volume of exports from Free World producing countries, Venezuela and the Middle East were the principal sufferers. The NPC reports further that the government revenues that would have been derived from such displaced oil have been estimated on the basis of the average direct income per barrel received by Middle East and Venezuelan Governments. On this basis, cumulative losses to these governments over the 1954-63 period, as shown in Table V-B, have reached \$840 million.

The NPC warns that if no action is taken by the West, the loss for 1964 is estimated at about \$200 million, rising to \$240 in 1965 and to range between \$350 & 450 in 1970. (7)

To determine the amount of loss that only the Middle East has suffered and from only the Soviet Union's portion of exports we have to determine first, the proportion of Middle Eastern exports to Venezuelan exports, as shown on V-A and second, the proportion of the Soviet Union's exports to the total Bloc exports:

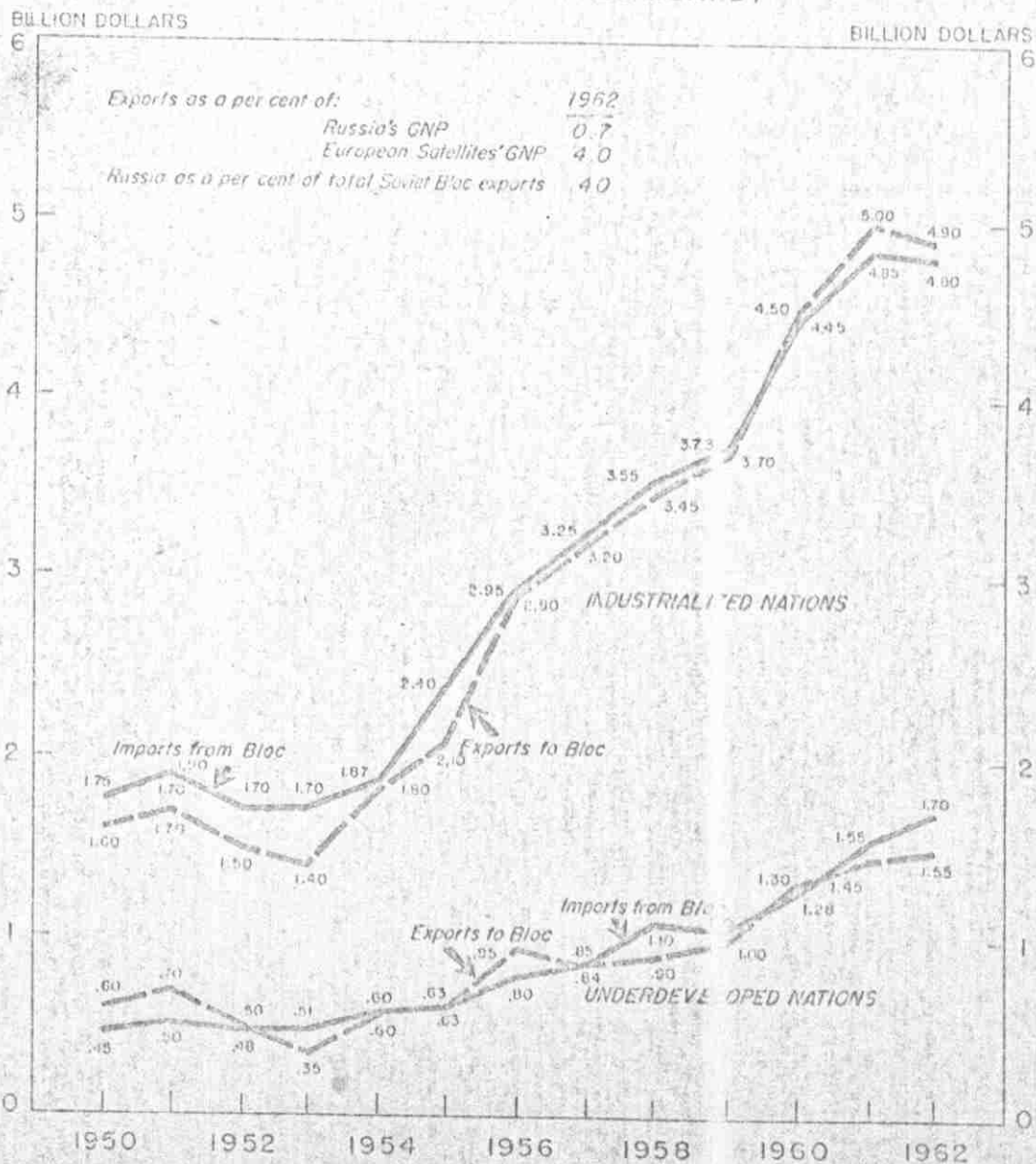
The first correlation is established in Table V-A by taking the average share of the Middle East and Venezuela of total world export. This table shows that the Middle East averaged 50.1% while

(7) "Impact of Oil Exports from the Soviet Bloc", National Petroleum Council, Washington 1964, P.33

FIGURE NO. V-1

FREE WORLD TRADE WITH THE SOVIET BLOC

(CUBA INCLUDED IN FREE WORLD)



Source: "Impact of Oil Exports from the Soviet Bloc", National Petroleum Council, Washington, 1964

V - BSOVIET INFLICTED INCOME LOSSES

<u>Y E A R</u>	<u>SOVIET BLOC EXPORTS TO NON-SOVIET WORLD (MIL. BBLs.)</u>	<u>SOVIET'S "FAIR SHARE" (MIL. BBLs.)</u>	<u>AVERAGE INCOME "OF MIDDLE EAST" & VENEZUELA (\$/BBL.)</u>	<u>LOSS OF INCOME BY MIDDLE EAST & VENEZUELA (\$ MILLION)</u>
1953	12	12	.67	-
1954	35	14	.72	15
1955	42	16	.75	19
1956	51	18	.76	25
1957	61	19	.82	34
1958	86	22	.82	52
1959	128	24	.80	83
1960	178	28	.78	117
1961	223	31	.76	145
1962	249	35	.76	167
1963	264	40	.76	183
(1954-1963)				\$ 840 MILLION

Source: 1953-1961 = Petroleum Intelligence Weekly, Dec. 31, 1962, P.4

1962-1963 = Calculated on the same basis.

Venezuela 30.4%. So it is roughly a 5 to 3, in favor of the Middle East.

The second requirement, that is the Soviet Union's share of total Bloc exports, is provided by the Petroleum Press Service⁽⁸⁾. It says that nine tenths of total Bloc exports are provided by the Soviet Union. Hence we can calculate the losses by only the Middle East and only by the USSR's oil export drive.

Since the established correlation of Middle East to Venezuela is 5 to 3, then the share of the Middle East of total losses of \$840 million would be \$525 million, resulting from total Bloc exports. As the Soviet Union contributes nine tenths of this total, then we can say roughly that the Middle East has suffered a loss of \$472.5 million because of the USSR's oil export drive over the last ten years.

It may be useful at this stage to study the development of Middle East oil revenues, say for the last five years.

Table V-C details the oil revenues received by the four major producing & exporting countries of the Middle East. This table indicates that oil revenues for 1963 were up 11.8% over those for 1962 and about 39% more than the \$1.2 - billion of 1959 & 1960.

Two passing remarks are worth mentioning here: one, the revenue increases are chiefly due to production increases over the years although some cuts in costs also helped. In 1963, Iran revenues, for example, were up 12.6% while output rose only 11.1%. Similarly, Kuwait increased its take by 8.2% on a production boost of only 5.4%⁽⁹⁾. Two, these oil revenues would have been higher by about \$388 million⁽¹⁰⁾ over the five years in question, had it not been for the Soviet Union's oil export drive.

(8) Petroleum Press Service, London, May, 1964, P.102

(9) Petroleum Intelligence Weekly, N. Y., Jan. 27, 1964, P.3

(10) Derived from Table V-B.

V - C

MIDDLE EAST OIL INCOME 1959 - 1963

(IN MILLION OF DOLLARS)

<u>Y E A R</u>	<u>I R A N*</u>	<u>I R A Q</u>	<u>K U W A I T**</u>	<u>S A U D I A R A B I A</u>	<u>FOUR-COUNTRY T O T A L</u>
1959	258	243	409	294	1,204
1960	285	267	409	332	1,293
1961	299	266	448	352	1,356
1962	333	267	498	398	1,496
1963	375	308	539	450	1,672

* Consortium only

** Does not include Neutral Zone revenues.

Source: Petroleum Intelligence Weekly, N.Y. Jan. 27, 1964, P.3

The indirect oil losses, as a result of less wages and salaries, revenues of local contractors and payments for local purchases of goods are more difficult to assess. As the level of these local receipts is linked with the level of oil production, the Soviet oil exports, which in effect retard this level, must have reduced those possible indirect receipts.

To summarize, the USSR's oil export drive has played an important role in the 1960 cut of Persian Gulf prices. This cut gave birth to the OPEC organization and there is some question that, had it not been for this Organization, posted oil prices would have been depressed further. The Soviet drive has also reduced the bargaining power of the Middle East producing countries. Consuming countries can now rely on Russian oil as a cushion for the possible cut of oil flow from the Middle East; moreover, it has penetrated into markets which have been the traditional preserve of the oil from the Middle East; and last, but not least, it has indirectly reduced the Middle East producing countries' oil revenues from the level it would have attained, had it not been for the Russian oil drive.

CHAPTER SIX

WHAT CAN BE DONE ABOUT THIS SOVIET OIL EXPORT DRIVE?

INTRODUCTION

We concluded Chapter Two by raising four major questions.

These were:

1. What are the market prospects for the Soviet oil exports? (Chapter Three attempted to answer this question.)
2. How strong were and are the objectives behind this oil export drive? (Chapter Four reviewed these objectives and discussed the different techniques used to achieve them.)
3. What is the impact of this export drive on the Middle East oil exports? (This was discussed in Chapter Five.)
4. What can be done about this drive to limit its adverse effects on Western markets? The answer to this question will be attempted in the present Chapter.

A. WHAT THE WESTERN COUNTRIES CAN DO?

1. Impose a Russian quota or limitation:

In Chapter Three we discussed the bilateral barter arrangements in terms of an unusual "two-way street": For the Russians, oil is a highly convenient means of paying for their essential imports; for the Western countries, and particularly the industrialized one, the Russians offer an expanding market for specialized goods of all kinds.

It also so happens that the prospects of this expanding Soviet market coincide with Western Europe's search for new markets, because of the rising labor costs and the tendency toward reduced

productivity per man hour coupled with the decline of the Latin American market.

All of these factors lead to the conclusion that (a) unless these Western countries find oil cheaper somewhere else, or (b) find other outlets for their manufactured goods, or (c) come to genuinely feel it is too risky to depend on Russian oil, it is unlikely that the Western European countries will impose any import limitation on Russian oil. There is no driving self-interest to bring about ^a general agreement on a quota limitation - rather the opposite. One or two countries might, from conservation, adopt a ten-percent-of-total-imports quota as a safety measure

2. Compensate the European countries which do not produce or control oil:

Until the opening of the Sahara oilfields, control of the supply of oil was largely by the British, the Dutch, and Americans. For the United Kingdom and the Netherlands, therefore, the domestic gains from lower prices for imported oil would in part be offset by a decline in their overseas operations. For the Italians, Germans, Scandinavians and until recently the French, any cut in the cost of oil would improve their position as consumers, or as producers of manufactured goods.

A possibly effective attempt, perhaps, to keep Soviet oil out or "freeze" its share in the industrialized areas of the West would be to compensate those European countries who do not have or control any oil of their own. This compensation might be in form of special price reductions or subsidies on purchases of ex-Russian oil.

The probable Soviet reaction to this attempt may be to intensify Russian oil exports to the underdeveloped countries and hence realize more political, if not economic, gains.

This measure seems to be impractical, and too difficult to operate. In addition, the countries involved may be reluctant to agree on any formula particularly in the light of their present outlook towards the Soviet Union as a very promising future market for their goods. Any cutting of Russian oil sales would be to "bite off one's nose to spite the face", since it would most likely divert Russian purchases elsewhere.

B. WHAT CAN THE OIL COMPANIES DO?

1. Meet the Soviet prices:

Meeting the Soviet prices, in a normal competitive manner, by cutting official posted prices and not offering discounts, raises a number of difficulties for the established oil producers of the Non-Soviet World.

a. Price competition may lead to disastrous price wars - as it did in the market struggle between Shell and Standard Oil in the early days of the oil industry.

b. Because of the low production cost per unit in the Middle East, the operating companies may not incur heavy losses (assuming of course the Middle East producing countries have approved of the price cut). But these companies operate also in high-cost areas such as the Caribbean, which is already in trouble because of the opening up of North African oil and the increasing shut-in capacity in the Persian Gulf. So any price competition may lead to mainly

knocking out Venezuelan production which the oil companies are, understandably, unwilling to do.

c. The OPEC Organization has listed a return to the pre-August, 1960 price level at the top of its objectives. It is highly improbable that the member producing countries would approve an official price cut.

d. Any price-cut form instituted by the oil companies to meet Soviet competition will be reflected in a decline in government receipts per unit of oil sold. This, particularly since the creation of OPEC, the oil companies will not do as it would upset their delicate bargaining relations with OPEC.

e. Whatever price level the oil companies reach, the Soviets could always undercut them, if they feel it is politically, even though not necessarily economically, worthwhile to do so. (1)

(1) Petroleum Intelligence Weekly, N.Y. Feb. 11, 1963, p.3

2. Provide bilateral barter arrangements to customers:

We have seen how successful the Russians have been in promoting their oil exports because of these arrangements. Are the oil companies are or willing to do that? The answer to be expected would be "No", the oil companies are not. What would they do with these manufactured goods, for instance? Give them to the producing countries in lieu of royalty payments? Well, this may sound a good answer. But the producing countries are already getting these goods from the industrialized countries. And what is more, the oil companies would find themselves engaged in activities out of their line and might be competing in resale with private firms of other industrialized nations, (such as the U.S.A. & Japan) which they would be highly reluctant to do.

3. Offer substantial discounts on oil shipments:

This, the oil companies are doing. In Chapter Three we illustrated how far Texaco and CFP have gone in discounting on sales to Morocco and Tunisia. As a matter of fact, the discount averaged 22% off posted prices and that brought the oil companies' price to within only 5¢/bbl. higher than the Russian price.

Such discounts however are at the expense of the oil companies, since calculation of royalty payments is made on the basis of posted prices and not on the actual discounted price. This is at least true in as far as the Middle East producing countries are concerned. (This is contrasted with Venezuela where royalty payments are calculated on the basis of the actual realize profit.)

4. Establish an effective cartel with Russian participation:

This arrangement would cut the Russians into the market without a fight. Apparently this idea has been food for thought to the Russians. Just recently, the Chairman of the Russian oil export Organization "Sojuzneft-export" is reported to have said that current international crude pattern is disorganized and economically unsound, with Venezuela selling to Europe, Europe to Asia, and Soviet Union to Cuba and Brazil⁽²⁾. The implication sounds like a call for a cartel.

Here again two possible opposition factors come into the pictures:

a. The OPEC Organization would object since the producing countries will be faced with a cartel that leaves them no say in any pricing policy. (It should be remembered that OPEC came into existence right after the Aug., 1960 cut in Persian Gulf prices and has been demanding a right to be consulted on prices.)

b. If such a cartel comes into existence, the oil companies would be up to their ears in anti-trust suits⁽³⁾, unless, of course, the anti-trust law is relaxed for this particular purpose. Would the oil industry get such a preferential treatment? How about the other industries then?

(2) Platt's Oilgram News Service, N.Y. April 27, 1964

(3) op.cit.

C. WHAT THE OIL PRODUCING COUNTRIES OF THE MIDDLE EAST CAN DO?

The late Mr. Emile Bustani, in an "Open Letter" on Soviet oil urged the Middle East oil countries to take the following steps:⁽⁴⁾

1. Use their best offices in endeavoring to persuade the Russians that "they should cease to tamper with the life-blood of their (the Middle East) economy" and to furthermore, warn them that if they continue to do so, "they will definitely and finally lose the friendship the Arabs afford them today".

2. Make a similar approach to Italy which "has acted in collusion with the Soviet Union in disposing of its oil at figures far below the current world prices."

3. Ask the Arab League to also interfere in explaining this "threat" on the Arab oil and to operate on a different "front" which could have "the happiest possible results".

D. WHAT OPEC CAN DO?

Bustani in the same letter called upon OPEC to send delegates to both the Soviet Union and Italy "at the highest possible level" to discuss the Soviet oil export drive and emphasize its threat on the Middle East oil.⁽⁵⁾

Another call upon OPEC came from Sheikh Abdulla Tariki in his paper "Towards better cooperation between oil producing and oil consuming countries", presented to the Fourth Arab Petroleum Congress in Beirut, Nov. 5-12, 1963. Tariki urged OPEC "to invite USSR to join it (OPEC), since the Russian record in the Organization of the Diamond exporters is recommending".⁽⁶⁾

⁽⁴⁾ Petroleum Intelligence Weekly, N.Y. March 26, 1962. Supp. p. 3

⁽⁵⁾ ibid

⁽⁶⁾ op.cit. Nov. 11, 1963, Supp. p. 16

E - WHAT THE USA CAN DO?

Senator Kenneth Keating (R.-N.Y.) has suggested four courses of action for the United States, to fight the Russian oil export drive⁽⁷⁾

1 - To work actively for uniform oil policies for the entire NATO community comparable to current weapon programs, with curbs on imports of Soviet oil.

2 - To help formulate common policies with regard to preventing western supplies to the Communists of oil transportation, pipeline, extracting, or refining equipment.

3 - To continue "public disclosure of Soviet price-cutting tactics designed to hurt not just the West but also the oil-producing countries dependent on oil revenues."

4 - To maintain a determined effort to increase oil exploration or reserves in other areas of the World more removed from the Soviet pressures.

F - WHAT THE EASTROPE PROJECT CAN DO?

The Eastrope pipeline⁽⁸⁾ is a project proposed by a NATO engineer, a Mr. Mario Mura to serve as an answer to Russia's oil threat (See Fig. VI-1)

The project in a nutshell, is a 4,000 mile pipeline, all but three-quarters of a mile of it on land, would feed 3.0 million b/d of crude oil from the oil fields in the Middle East into the heart of industrial Central Europe.

This proposed pipeline would collect this oil feed from Kuwait, Saudi Arabia, Iraq, and Iran, running through Syria, Turkey, Greece, Yugoslavia, and Austria to Germany.

(7) The Oil and Gas Journal, Tulsa, USA, July 2, 1962, P. 70

(8) Pipeline Engineer, Dallas, Texas, April, 1962, pp 33-35

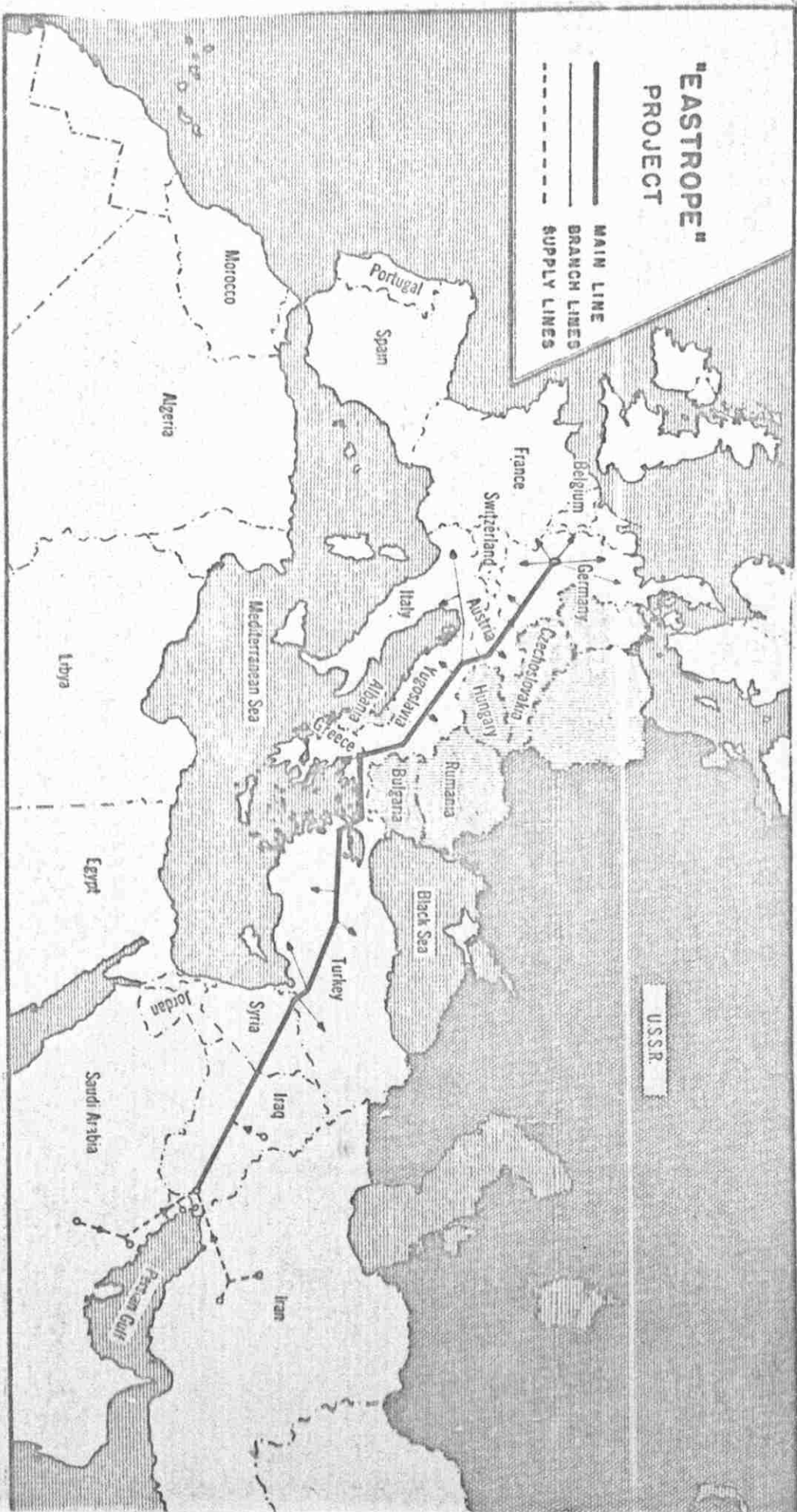


Figure VI-1

This pipeline "would provide economical transportation of large quantities of crude to combat the politically-inspired flow of cheap Russian oil".

The project is estimated to cost about \$ 800 million. But Mr. Mura does not suggest who is to finance this project.

The difficulty of implementing this project is, of course, the many countries involved and the complications that may arise together with the relative huge investment needed for the project.

G - SUMMARY

In summary, the prospects of an organized and effective plan to check the Soviet oil penetration into Non-Soviet markets appear to be far-fetched. The west in particular, has to balance on the one hand the benefits of cheaper oil to produce lower-cost energy, irrespective of this oil's geographical source, and on the other, the risk of the discontinuance of this supply at short notice.

The burden of resistance appears to be undertaken mainly by the oil companies by discounting from posted prices to the consumer, while calculating the oil producing Governments' take on the basis of the posted prices.

CONCLUSION

The Soviet oil export has been a controversial topic ever since the Soviet Union has launched its latest drive in 1955.

The present study has been devoted to provide a background on the development of this oil export drive; to analyze the Soviet Union's oil export capabilities; to study the prospects, and determine the objectives behind this drive. This paper has also attempted to cover the possibilities open before the different parties concerned to curb this drive. The following are the major conclusions of this endeavor:

1 - The planned petroleum production levels for the years to come can hardly be limited by geologic factors and that the Soviet's shortage of production equipment and material, inconvenient as it were, does not pose a serious problem to the Soviet Union.

2 - The home consumption and the "Chemicalization" policy, together with the potential exports to other Bloc Countries through the Comecon pipeline, indicate that there will be a rising domestic demand. However, we have estimated that the USSR's oil exports (production minus consumption) for 1965 will neither be under 51 million tons (1,100,000 b/d), nor over 64 million tons (1,280,000 b/d). Assuming that the other Soviet Bloc Countries maintain their current proportion of total USSR's oil exports (about 35%), this will leave a range of 33.0 million tons (660,000 b/d) to 41.6 million tons (832,000 b/d), as exportable to the Non-Soviet World. Using the same formula this will range between 45.5 million tons (910,000 b/d) and 107.2 million tons (2,014,000 b/d) in 1975.

3 - In the Soviet oil transportation, we found that the different pipeline projects - completed, under construction or planned - will enable the USSR to reduce considerably its transportation cost/unit; and to move its oil to the Baltic Sea and the Pacific Ocean, the entirely new port outlets, in addition to its expansion of existent Black Sea Terminals.

As to tankers, the USSR is expected to own by 1965 enough carrying capacity to transport 85% of its overseas shipments, the balance being supplied by the buyers. This will eliminate the USSR's dependence on foreign-flag tankers and reduce the risk of "tanker bans", similar to the pipe ban from which it has suffered.

4 - The Soviet oil exports appear to be enjoying - and is expected to do so for the years to come - the:

- a - Expanding demand for oil in the Non-Soviet World;
- b - Absence of an EEC energy policy;
- c - Flexibility of the USSR's pricing policy;
- d - Abundance of tanker tonnage; and
- e - Bilateral barter arrangements.

5 - The Soviet oil export drive is facing some limitations, such as:

a - The narrowing of the gap between Soviet and major company oil prices - the recent Texaco's and the CPP's deals for Morocco and Tunisia have been cited;

b - The increasing share of crude in the total Soviet oil exports. This will place a limitation because of the lack of excess refining capacity in the Non-Soviet World;

c - The Soviet Union's lack of enough distribution facilities in the importing countries;

d - The international oil companies', never-ceasing fight against the Soviet oil export drive;

e - The emergence of the African oil into some of the major oil markets; and

f - Other possible limitations such as:

the freedom of action in pricing may diminish; the growing resentment in the exporting countries, whose main revenues come from oil royalties and taxes; and the market saturation.

6 - The Soviet Union achieves both political and economic objectives through its oil export drive. With the under-developed countries, its transactions are geared towards achieving political objectives by entering into trade agreements with these countries to either supply a critical portion of their petroleum requirements or purchasing a critical portion of their exports. This puts the Russians in a favorable political position in those countries. This plus the fact that the Soviet Union practices price discrimination to the disadvantage of the Soviet Bloc Countries and Krushchev's statement that they value trade least for economic reasons and most for political ones, lead one to emphasize the political objectives behind the Soviet export drive.

The economic objective is demonstrated in the Soviet Union's deals with the industrialized importing countries which save the Russians the foreign exchange and supply them with the industrialized goods of all kinds they are in bad need of. Hence, the Soviet Union achieves both political and economic objectives through its oil exports.

7 - The Soviet oil export drive has played an important role in the 1960 cut of Persian Gulf posted prices. This cut gave birth to the OPEC Organization and there is some question that, had it not been for this Organization, posted oil prices would have been depressed further.

The Soviet's drive has also reduced the bargaining power of the Middle East producing countries. Consuming countries can now rely on Russian oil as a cushion for the possible cut of oil flow from the Middle East. Moreover, the Russian oil has penetrated into markets which have been the traditional preserve of the oil from the Middle East. Last but not least, Russian oil exports have indirectly reduced the Middle East producing countries oil revenues from the level it would have been attained, had it not been for the Russian oil drive.

8 - As to what could be done to reduce the adverse impact of this Soviet oil export drive, we found that the prospects of an organized and effective plan to check the Soviet oil penetration into Non-Soviet markets appear to be far-fetched.

The West, in particular, has to balance on the one hand the benefits of cheaper oil to produce lower-cost energy, irrespective of this oil's geographical source, and on the other, the risk of a discontinuance of an oil supply at a short notice.

The burden of resistance appears so far to have been undertaken mainly by the oil companies by discounting from posted prices to the consuming countries, while calculating the oil producing Governments' take - at least in the Middle East - on the basis of the posted prices. It remains to be seen how long these oil companies can stand this situation.

--- THE END ---

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May, 1964

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