

~~SECRET~~

Nº 81

1996

ECONOMIC INTELLIGENCE REPORT  
CIA HISTORICAL REVIEW PROGRAM  
RELEASE AS SANITIZED

1958  
INTRA-SINO-SOVIET BLOC TRADE  
IN PETROLEUM  
1952-56



CIA/RR 127

20 March 1958

CENTRAL INTELLIGENCE AGENCY

OFFICE OF RESEARCH AND REPORTS

~~SECRET~~

10-227965

~~SECRET~~

ECONOMIC INTELLIGENCE REPORT

INTRA-SINO-SOVIET BLOC TRADE IN PETROLEUM  
1952-56

CIA/RR 127

(ORR Project 25.1577)

CENTRAL INTELLIGENCE AGENCY  
Office of Research and Reports

~~SECRET~~

00  
- 11 -

~~SECRET~~

FOREWORD

The purpose of this report is to examine the intra-Sino-Soviet Bloc trade in petroleum during 1952-56 and to provide information on the volume, composition, and direction of petroleum traffic among the countries of the Sino-Soviet Bloc.

This report revises data shown for 1952 in CIA/RR IM-375, Flow of Petroleum in the Soviet Bloc European Satellites 1952, 13 July 1953, S/ , and data shown for 1953 in CIA/RR PR-107, Soviet Bloc Trade in Petroleum and Petroleum Products: Intra-Bloc and East-West, 1947-53, 6 April 1955, S

CIA/RR IM-375 and CIA/RR PR-107 included as a part of the intra-Bloc trade in petroleum the petroleum shipped to the Soviet Bloc from Austria during the period of Soviet occupation. In order to provide a consistent basis for comparison with data for the years subsequent to the Soviet occupation, the previous estimates of intra-Bloc trade have been revised to exclude shipments of petroleum from Austria.

CIA/RR 93, Trade in Petroleum Between the Sino-Soviet Bloc and the Free World, 22 July 1957, S provides details of the Bloc trade in petroleum with the Free World.

~~SECRET~~

~~S-E-C-R-E-T~~

CONTENTS

	<u>Page</u>
Summary . . . . .	1
I. Introduction . . . . .	2
II. Petroleum Movements . . . . .	4
A. Crude Oil . . . . .	4
B. Petroleum Products . . . . .	5
III. Interrelationship of Countries of the Sino-Soviet Bloc in Trade in Petroleum . . . . .	6
IV. Future Trends . . . . .	6
A. Crude Oil . . . . .	6
B. Petroleum Products . . . . .	7
V. Conclusions . . . . .	8

Appendixes

Appendix A. Statistical Data . . . . .	11
Appendix B. Methodology . . . . .	37

Tables

1. Summary of Intra-Sino-Soviet Bloc Trade in Petroleum, by Country, 1952-56 . . . . .	12
2. Summary of Intra-Sino-Soviet Bloc Trade in Crude Oil, by Country, 1952-56 . . . . .	13

[p. IV blank]

	<u>Page</u>
3. Summary of Intra-Sino-Soviet Bloc Trade in Petroleum Products, by Country, 1952-56 . . . . .	14
4. Summary of Intra-Sino-Soviet Bloc Trade in Gasoline, by Country, 1952-56 . . . . .	15
5. Summary of Intra-Sino-Soviet Bloc Trade in Kerosine, by Country, 1952-56 . . . . .	16
6. Summary of Intra-Sino-Soviet Bloc Trade in Gas Oil, by Country, 1952-56 . . . . .	17
7. Summary of Intra-Sino-Soviet Bloc Trade in Residual Fuel Oil, by Country, 1952-56 . . . . .	18
8. Summary of Intra-Sino-Soviet Bloc Trade in Lubricants, by Country, 1952-56 . . . . .	19
9. Weight of Exports of Petroleum from the USSR to Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	20
10. Weight of Exports of Petroleum from the USSR to Other Sino-Soviet Bloc Countries, by Destination, 1952-56 . . . . .	20
11. Weight of Imports of Petroleum by the USSR from Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	21
12. Weight of Imports of Petroleum by the USSR from Other Sino-Soviet Bloc Countries, by Origin, 1952-56 . . . . .	21
13. Weight of Exports of Crude Oil from Albania to Other Sino-Soviet Bloc Countries, by Destination, 1952-56 . . . . .	22
14. Weight of Imports of Petroleum Products by Albania from Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	22

	<u>Page</u>
15. Weight of Imports of Petroleum Products by Albania from Other Sino-Soviet Bloc Countries, by Origin, 1952-56 . . . . .	23
16. Weight of Exports of Crude Oil from Bulgaria to Other Sino-Soviet Bloc Countries, by Destination, 1952-56 . .	23
17. Weight of Imports of Petroleum Products by Bulgaria from Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	24
18. Weight of Imports of Petroleum Products by Bulgaria from Other Sino-Soviet Bloc Countries, by Origin, 1952-56 . . . . .	24
19. Weight of Exports of Petroleum Products from Czechoslovakia to Bulgaria, 1952-56 . . . . .	25
20. Weight of Imports of Petroleum by Czechoslovakia from Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	25
21. Weight of Imports of Petroleum by Czechoslovakia from Other Sino-Soviet Bloc Countries, by Origin, 1952-56 . . . . .	26
22. Weight of Exports of Petroleum Products from East Germany to Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	26
23. Weight of Exports of Petroleum Products from East Germany to Other Sino-Soviet Bloc Countries, by Destination, 1952-56 . . . . .	27
24. Weight of Imports of Petroleum by East Germany from Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	27
25. Weight of Imports of Petroleum by East Germany from Other Sino-Soviet Bloc Countries, by Origin, 1952-56 . .	28

	<u>Page</u>
26. Weight of Exports of Petroleum from Hungary to Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	28
27. Weight of Exports of Petroleum from Hungary to Other Sino-Soviet Bloc Countries, by Destination, 1952-56 . .	29
28. Weight of Imports of Petroleum by Hungary from Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	30
29. Weight of Imports of Petroleum by Hungary from Other Sino-Soviet Bloc Countries, by Origin, 1952-56 . . . . .	30
30. Weight of Imports of Petroleum by Poland from Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	31
31. Weight of Imports of Petroleum by Poland from Other Sino-Soviet Bloc Countries, by Origin, 1952-56 . . . . .	31
32. Weight of Exports of Petroleum from Rumania to Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	32
33. Weight of Exports of Petroleum from Rumania to Other Sino-Soviet Bloc Countries, by Destination, 1952-56 . .	32
34. Weight of Imports of Petroleum Products by Rumania from Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	33
35. Weight of Imports of Petroleum Products by Rumania from Other Sino-Soviet Bloc Countries, by Origin, 1952-56 . . . . .	33
36. Weight of Imports of Petroleum by Communist China from Other Sino-Soviet Bloc Countries, by Type of Product, 1952-56 . . . . .	34

	<u>Page</u>
37. Weight of Imports of Petroleum by Communist China from Other Sino-Soviet Bloc Countries, by Origin, 1952-56 . . . . .	34
38. Weight of Imports of Petroleum Products by North Vietnam from Rumania, 1952-56 . . . . .	35

Illustrations

	<u>Following Page.</u>
Figure 1. Intra-Sino-Soviet Bloc Trade in Petroleum, 1952 and 1956 (Chart) . . . . .	12
Figure 2. Intra-Sino-Soviet Bloc Trade in Crude Oil, 1956 (Map) . . . . .	14
Figure 3. Intra-Sino-Soviet Bloc Trade in Petroleum Products, 1956 (Map) . . . . .	14
Figure 4. Weight of Petroleum Moved Within the Sino-Soviet Bloc, 1952-56 (Chart) . . . . .	20
Figure 5. Exports of Petroleum from the USSR to Other Countries of the Sino-Soviet-Bloc, 1952-56 (Chart) . . . . .	20
Figure 6. Exports of Petroleum from Rumania to Other Countries of the Sino-Soviet Bloc, 1952-56 (Chart) . . . . .	32



INTRA-SINO-SOVIET BLOC TRADE IN PETROLEUM\*  
1952-56

Summary

During 1952-56, 37.6 million metric tons\*\* of petroleum\*\*\* were moved in intra-Sino-Soviet Bloc\*\*\*\* trade. This amount represents an average of 7.5 million tons per year (150,000 barrels per day). The volume of the intra-Bloc trade in petroleum increased from 6.1 million tons in 1952 to 9.3 million tons in 1956, an increase of 52 percent. Although several of the countries of the Bloc, notably China, Poland, and East Germany, are deficient in domestic production of crude oil and in refining capacity, the Bloc as a whole is self-sufficient in petroleum supplies. The relatively high production of petroleum in the USSR and Rumania enabled the Bloc to satisfy the requirements of each of the component countries in 1956 and at the same time to provide net exports to the Free World of 5 million tons of petroleum products.

Rumania, the USSR, and Communist China were the three countries involved in the major portion of the intra-Sino-Soviet Bloc trade in petroleum during 1952-56. Rumania supplied an average of 4.2 million tons annually to the USSR, and the USSR in turn supplied an average of 1.1 million tons annually to Communist China. Thus Rumania was the major exporter in intra-Bloc trade, and the USSR and Communist China were the major importers.

---

\* The estimates and conclusions contained in this report represent the best judgment of ORR as of 15 November 1957.

\*\* Tonnages are given in metric tons throughout this report.

\*\*\* The term petroleum includes both crude oil and petroleum products. Petroleum products include gasoline, kerosine, gas oil, residual fuel oil, and lubricants.

\*\*\*\* The term Sino-Soviet Bloc throughout this report includes the following countries: the USSR, Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Rumania, Communist China, the Mongolian Peoples Republic, North Korea, and North Vietnam.

~~S-E-C-R-E-T~~

Shipments of 2.9 million tons of crude oil accounted for 8 percent of the petroleum traded among the countries of the Sino-Soviet Bloc during 1952-56. The USSR supplied approximately 60 percent; Albania supplied about 15 percent; and the remaining 25 percent was supplied by Bulgaria, Hungary, and Rumania. Communist China and Poland each received approximately 35 percent; East Germany received about 20 percent; and the remaining 10 percent went to Czechoslovakia, the USSR, and Hungary.

Shipments of 34.7 million tons of petroleum products accounted for 92 percent of the petroleum traded among the countries of the Sino-Soviet Bloc during 1952-56. Rumania supplied more than 70 percent, the USSR provided nearly 20 percent, and the remaining 10 percent came primarily from East Germany and Hungary. The USSR received about 65 percent; Communist China received 15 percent; and the remaining 20 percent went primarily to Poland, Bulgaria, and Czechoslovakia.

Intra-Sino-Soviet Bloc trade in crude oil is expected to increase principally because refining capacity will increase in individual countries, particularly in certain European Satellites, at a greater rate than domestic production of crude oil. The USSR, Bulgaria, and Albania are expected to continue as the principal suppliers of crude oil through 1960. Hungary, Communist China, Poland, and East Germany will be the principal recipients of crude oil. Intra-Bloc trade in petroleum products will increase as a result of increased demand, particularly in those European Satellites which are deficient in petroleum. Rumania, the USSR, and East Germany are expected to continue as the principal exporters of petroleum products. The USSR and Communist China should continue as the principal importers of petroleum products, with relatively small quantities going to Poland, Bulgaria, and Czechoslovakia.

---

#### I. Introduction.

By 1956 the petroleum industry of the Sino-Soviet Bloc not only had been rehabilitated from the ravages of World War II and expanded beyond prewar capabilities but also had increased its capacity to the point where approximately 5 percent of its total production could be exported as refined products to the Free World (principally Western Europe and the Middle East).

- 2 -

~~S-E-C-R-E-T~~

~~S-E-C-R-E-T~~

Production of crude oil in the Sino-Soviet Bloc in 1956 was 98 million tons. 1/\* Imports of crude oil into the Bloc from Austria, 1.4 million tons, were balanced by exports of 1.4 million tons from the Bloc to the Free World. 2/ Thus the new domestic supply of crude oil in the Bloc in 1956 was the 98 million tons of domestic production. Although 9 of the 12 countries of the Bloc produced commercial quantities of crude oil in 1956, 2 of them, the USSR and Rumania, accounted for 84 million and 11 million tons, respectively, of the 98 million tons of new domestic supply.

Refineries in the Sino-Soviet Bloc produced 39 million tons of petroleum products from crude oil and 3 million tons of petroleum products from synthetic sources (shale and coal) in 1956. 3/ Although imports of products to the Bloc from the Free World were insignificant, exports from the Bloc to the Free World were approximately 5 million tons.

Domestic demand for petroleum products in the USSR in 1956 was about equal to domestic production of petroleum products, 76 million tons, and accounted for the bulk of the total domestic demand in the Sino-Soviet Bloc of 87 million tons. The domestic demand of all other countries of the Bloc, 11 million tons, was satisfied principally by augmenting individual domestic production by products from Rumania. Although 80 percent of the exports of petroleum products from Rumania to the Bloc were shipped to the USSR, none of these exports was actually used to satisfy domestic demand in the USSR. Instead, the USSR was a re-exporter\*\* to other Bloc countries of approximately 60 percent of the imports from Rumania. The USSR re-exported the other 40 percent to the Free World.

Within the Sino-Soviet Bloc, trade in petroleum accounted for approximately 3 percent of total intra-Bloc trade in 1956.\*\*\* As is the case with most other commodities, petroleum is traded within the

---

\*\* The term re-exporter as used in this report is defined as a country which both imports and exports commodities that are included in the same category. For example, a country which imports and exports crude oil and petroleum products is considered to be a re-exporter even though the specifications of the imported and exported petroleum may differ.

\*\*\* Based on value computed at Free World prices at the official rate of exchange, 4 rubles to US \$1, which does not necessarily reflect the actual dollar value.

~~SECRET~~

Bloc on a barter\* basis. Petroleum is transported in intra-Bloc trade by ocean tanker (both Bloc and Free World), by rail, and by river barge. It is estimated that 55 percent of the petroleum moved in intra-Bloc trade in 1956 was shipped by tanker, 40 percent by rail, and 5 percent by barge on the Danube River. Approximately 75 percent by weight of shipments by tanker were between Black Sea ports, and the other 25 percent of shipments by tanker were from Black Sea ports to other Bloc ports.

## II. Petroleum Movements.

During 1952-56, 37.6 million tons of petroleum were moved in intra-Sino-Soviet Bloc trade.\* Shipments of petroleum increased from 6.1 million tons in 1952 to 9.3 million tons in 1956, an increase of 52 percent. The increase occurred in two steps rather than in a steady pattern of growth. A large increase of more than 1 million tons, from less than 6.1 million tons in 1952 to approximately 7.1 million tons in 1953, occurred principally as a result of increased exports of products from Rumania to other Bloc countries. Intra-Bloc trade in petroleum averaged 7.4 million tons during the period 1953 through 1955. A second large increase of more than 1.6 million tons, from about 7.7 million tons in 1955 to a little more than 9.3 million tons in 1956, occurred as a result of increased exports of products from Rumania and re-exports from the USSR to the Bloc.

All countries of the Sino-Soviet Bloc participated in intra-Bloc trade in petroleum during 1952-56. Rumania and the USSR were the principal exporters, and the USSR and Communist China were the principal importers. In 1956, three countries were net exporters -- Rumania, Albania, and East Germany.

### A. Crude Oil.

Crude oil accounted for 2.9 million tons of the petroleum moved in intra-Sino-Soviet Bloc trade during 1952-56.\*\* Shipments of crude oil increased from 0.24 million tons, or 4 percent of the shipments of petroleum, in 1952 to 0.94 million tons, or 10 percent of the shipments of petroleum, in 1956. The largest annual increase, 300,000 tons, occurred in 1955.

\* See Table 1, Appendix A, p. 12, below.

\*\* See Table 2, Appendix A, p. 13, below.

~~SECRET~~

The number of countries of the Sino-Soviet Bloc participating in intra-Bloc trade in crude oil increased from 4 in 1952 to 8 in 1956. In 1952 the USSR and Albania were the only Bloc exporters, and Communist China and Poland were the only importers. In 1956 the exporters were the USSR, Bulgaria, Albania, and Hungary, and the importers were East Germany, Communist China, Poland, Hungary, Czechoslovakia, and the USSR.

B. Petroleum Products.

Petroleum products accounted for 34.7 million tons, or 92 percent, of the petroleum moved in intra-Sino-Soviet Bloc trade during 1952-56.\* Shipments of products increased from 5.8 million tons in 1952 to 8.4 million tons in 1956, an increase of 45 percent. The largest annual increase of 1.5 million tons occurred in 1956, when shipments were 22 percent greater than shipments in 1955. All Bloc countries participated in intra-Bloc trade in petroleum products during 1952-56. Rumania was the principal exporter, and the USSR and Communist China were the principal importers. In 1956, three countries were net exporters -- Rumania, East Germany, and Hungary.

The composition of the petroleum products shipped in intra-Sino-Soviet Bloc trade during 1952-56, by weight and percent, was as follows\*\*:

Product	Amount	
	(Million Metric Tons)	(Percent)
Gasoline	15.7	45
Kerosine	5.8	17
Gas oil	7.4	21
Residual fuel oil	4.8	14
Lubricants	1.1	3
Total	<u>34.7</u>	<u>100</u>

\* See Table 3, Appendix A, p. 14, below.

\*\* See Tables 4 through 8, Appendix A, pp. 15-19, below. The total was derived from unrounded data and is not the sum of the rounded data here shown.

III. Interrelationship of Countries of the Sino-Soviet Bloc in Trade in Petroleum.

The principal exporter of crude oil in intra-Sino-Soviet Bloc trade is the USSR. Bulgaria and Albania export significant quantities of crude oil but are of lesser importance. Rumania and the USSR are the primary sources of the petroleum products traded within the Bloc, and East Germany and Hungary supply significant but relatively small quantities.

The principal importers of crude oil in intra-Sino-Soviet Bloc trade are Communist China, Poland, and East Germany. The quantities imported by the USSR, Czechoslovakia, and Hungary from the Bloc are relatively small. The USSR and Communist China are the primary importers of the petroleum products traded within the Bloc. Bulgaria, Czechoslovakia, and Poland receive lesser quantities, whereas imports into the other countries of the Sino-Soviet Bloc are relatively insignificant.

Now that Hungary is expected to discontinue exports of crude oil, the only re-exporter of crude oil in intra-Sino-Soviet Bloc trade will be the USSR. The re-export of crude oil in intra-Bloc trade did not begin until 1955 and is still of small magnitude. The re-export of petroleum products, on the other hand, accounted for 29 percent of the intra-Bloc trade in petroleum products in 1956. The USSR is the principal re-exporter. East Germany and Hungary re-export lesser quantities, whereas re-exports of petroleum products from Czechoslovakia and Rumania are relatively insignificant.

IV. Future Trends.

A. Crude Oil.

Refinery capacity in the USSR and Rumania is geared to domestic production of crude oil, but refinery capacity in Czechoslovakia, East Germany, Hungary, and Poland currently exceeds domestic production and is being expanded at a faster rate. New facilities in Czechoslovakia have recently been placed in operation, <sup>4</sup>/ East Germany is rapidly converting synthetic processing equipment to natural petroleum service, and the recent decrease in Hungarian production has in effect created excess capacity there. As a result, there is an increasing demand for imported crude oil in Czechoslovakia, East Germany, Hungary,

~~SECRET~~

and Poland. At the same time, Austria is successfully pleading inability to meet deliveries on 200,000 tons of the annual 1.2 million tons on reparations payments of crude oil to the USSR (actually delivered upon Soviet instructions to Eastern Europe). 5/ An increase in demand plus a decrease in supply from Austria indicates a probable increase in intra-Sino-Soviet Bloc trade during 1957-60.

Exports of crude oil from the USSR to the Sino-Soviet Bloc are expected to increase. Czechoslovakia, East Germany, and Poland should all receive larger amounts from the USSR, which is also expected to assign a larger amount of the crude oil from Austria to Hungary for refining. In addition, the USSR probably will export some domestic crude oil to Hungary. 6/ Exports from Bulgaria to Czechoslovakia, East Germany, Hungary, and Poland are expected to increase. Albania, also an exporter to other Bloc countries, may be able to increase exports of crude oil to Poland in spite of an increase in domestic demand. A part of the increase in exports from Albania to Poland may well result from a decrease in the exports from Albania to the USSR.

Exports from Hungary to the Sino-Soviet Bloc are expected to cease as a result of the large drop in domestic production of crude oil occasioned by water encroachment in the principal Hungarian oil-field at Nagylengyel. On the other hand, Hungary is expected to increase imports during 1957-60, with the USSR and Bulgaria the probable suppliers. The anticipated increase in imports of crude oil into Czechoslovakia probably will be supplied by the USSR and Bulgaria. The increase in imports into East Germany from the USSR and Bulgaria should more than offset the amount previously imported from Hungary. The increase in imports of crude oil into Poland from the USSR, Albania, and Bulgaria are expected to exceed the decrease in imports from Hungary. Communist China does not have sufficient refining capacity in excess of domestic production and current imports to justify an increase in its imports of crude oil from the Sino-Soviet Bloc.

#### B. Petroleum Products.

The quantity of petroleum products moved in intra-Sino-Soviet Bloc trade probably will increase during 1957-60. Exports from Rumania to the Bloc are expected to increase. The principal recipients of increased shipments will include the USSR, Hungary, and Poland, with smaller increases to Bulgaria, East Germany, and North Vietnam. Anticipated decreases in shipments from Rumania to Albania and Communist

~~SECRET~~

~~SECRET~~

China, together with an increase in domestic production, will provide the source of increased exports from Rumania to the USSR, Bulgaria, East Germany, Hungary, Poland, and North Vietnam. The USSR, as the second most important exporter of petroleum products to the Bloc, is expected to increase exports to Bulgaria, East Germany, Hungary, Poland, and Communist China. Additional domestic refining capacity, placed in operation late in 1956, will enable Albania to reduce imports of products from the Bloc. 7/

V. Conclusions.

During 1952-56 the USSR was a net exporter to the Sino-Soviet Bloc of 1.6 million tons of crude oil and a net importer from the Bloc of 16.7 million tons of petroleum products. During the same period the USSR exported 3 million tons of crude oil and 7.8 million tons of petroleum products to the Free World. 8/ Thus the USSR was a net importer of 4.3 million tons of petroleum during 1952-56. Imports of petroleum products from Rumania into the USSR more than compensated for the exports of crude oil and petroleum products from the USSR to both the Bloc and the Free World. Although a net importer of petroleum from the Bloc during 1952-56, the USSR was a net exporter of petroleum to the world of 280,000 tons in 1955 and 1.5 million tons in 1956.

The refining capacity in Albania was inadequate to meet domestic requirements for petroleum products during 1952-56. Consequently, Albania exported crude oil and imported products.

Bulgaria during 1952-56 was a net exporter to the Sino-Soviet Bloc of 300,000 tons of crude oil and a net importer of 1.6 million tons of petroleum products, indicating a lack of domestic refining capacity as well as a shortage of sufficient domestic production of crude oil to meet the domestic demand for petroleum products.

Czechoslovakia was a net importer of both crude oil and petroleum products, thereby underscoring its shortage of domestic crude oil and the lack of domestic refining capacity.

East Germany was a net exporter to the Sino-Soviet Bloc of 1.6 million tons of petroleum products during 1952-56. Approximately 450,000 tons of the exports of petroleum products were offset by a 90-percent yield on the 498,000 tons of imports of crude oil from the Bloc. In addition, 1.15 million tons of petroleum products for export were derived from crude oil imported from Austria. 9/

~~SECRET~~



~~S-E-C-R-E-T~~

During 1952-56, Hungary was a net exporter to other countries of the Sino-Soviet Bloc of 105,000 tons of crude oil and 1 million tons of petroleum products. In addition, Hungary exported 250,000 tons of petroleum products (residual fuel oil) to the Free World. <sup>10/</sup> The 1.5 million tons of crude oil imported into Hungary from Austria was just sufficient to offset the total exports of crude oil and petroleum products.

The fact that Poland was a net importer from the Sino-Soviet Bloc of 1 million tons of crude oil and 2.7 million tons of petroleum products illustrates the shortage of domestic crude oil supplies and the lack of domestic refining capacity.

Rumania, with the exception of small quantities of high-octane aviation gasoline and special lubricants, is self-sufficient in petroleum products and exports to the Sino-Soviet Bloc and the Free World approximately 80 percent of its refinery output.

As a net importer of 1 million tons of crude oil and 4.9 million tons of petroleum products, Communist China was dependent on the USSR for much of its supply of petroleum during 1952-56.

North Vietnam imported small amounts of kerosine and gasoline from Rumania during 1955 and 1956.

The Mongolian Peoples Republic and North Korea imported unknown amounts of petroleum products from the Sino-Soviet Bloc during 1952-56. The amounts were undoubtedly small, and the major petroleum products probably included kerosine, gasoline, and lubricants.

~~SECRET~~

APPENDIX A

STATISTICAL DATA

Summaries of intra-Sino-Soviet Bloc trade in various forms of petroleum and products during 1952-56 are shown in Tables 1 through 8 and Figures 1 through 3. Data on petroleum are shown in Table 1 and Figure 1\*; on crude oil, in Table 2 and Figure 2\*\*; on petroleum products, in Table 3 and Figure 3\*\*; on crude oil, gasoline, kerosine, gas oil, residual fuel oil, and lubricants, in Tables 2, 4, 5, 7, and 8, respectively, and in Figure 4.\*\*\* Details on individual countries are shown in Tables 9 through 35 and Figures 5\*\*\* and 6.\*\*\*\*

- \* Following p. 12.  
\*\* Following p. 14.  
\*\*\* Following p. 20.  
\*\*\*\* Following p. 32.

- 11 -

~~SECRET~~

[p. no. blank]

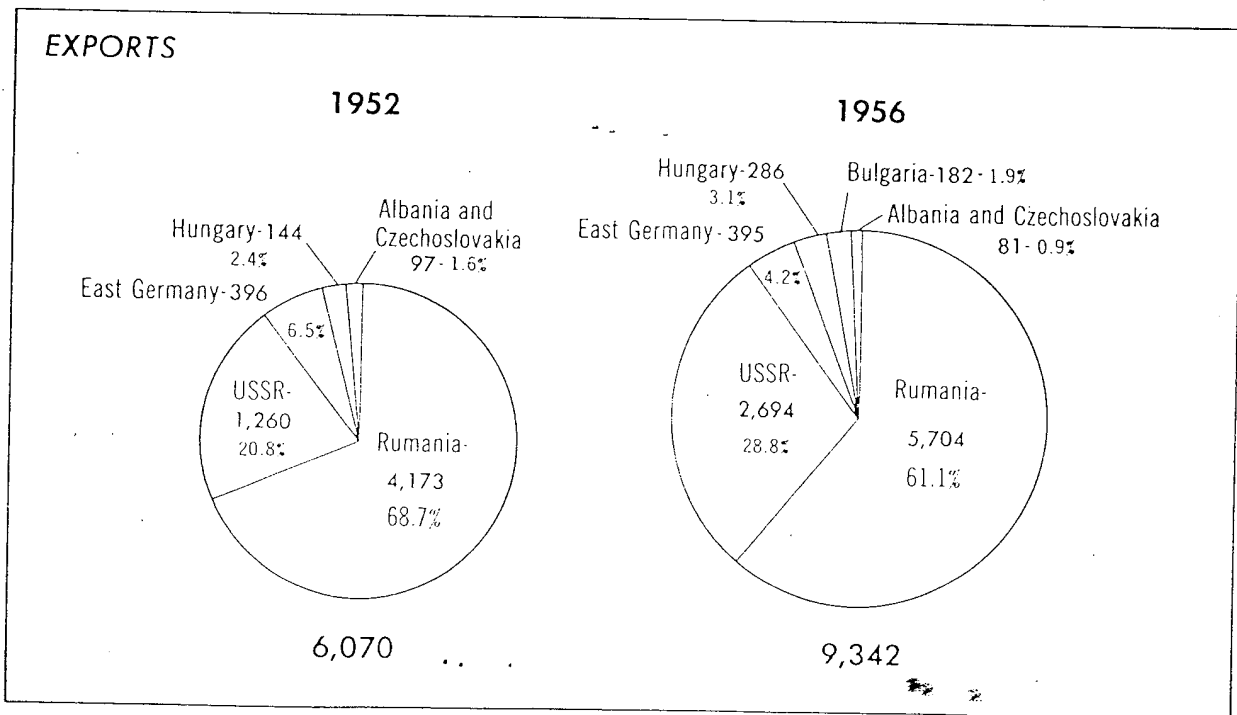
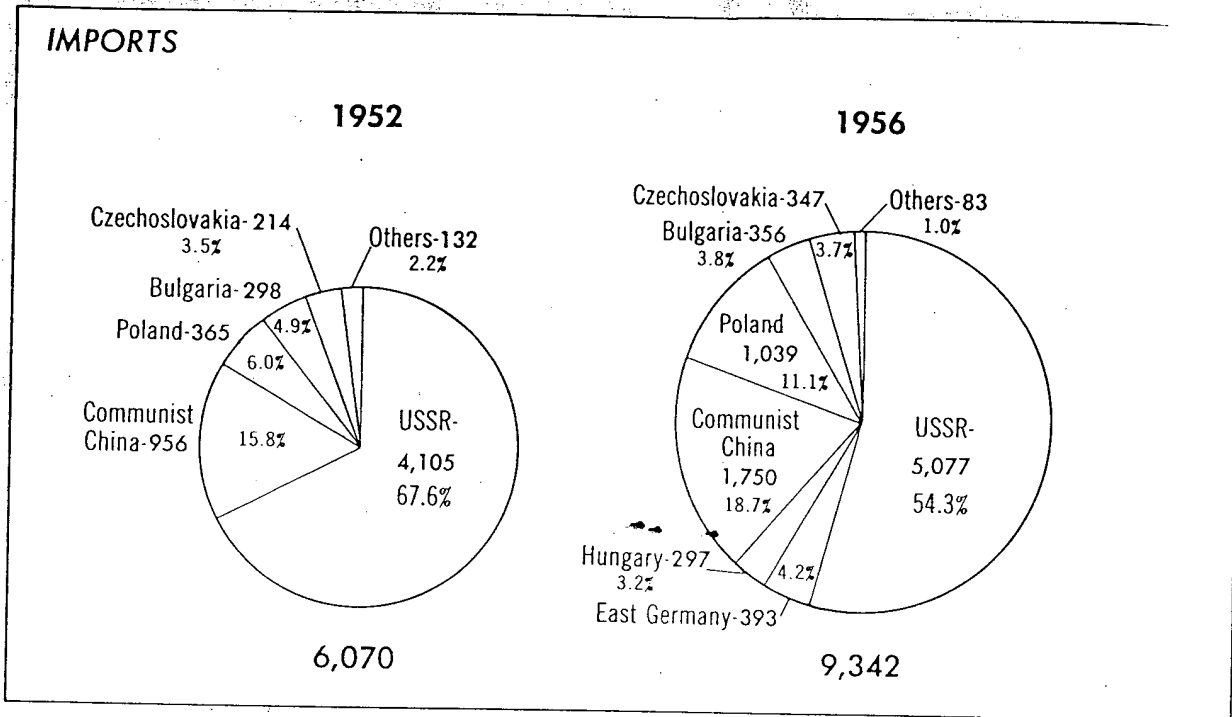
Summary of Intra-Sino-Soviet Bloc Trade in Petroleum, by Country a/  
1952-56

Type of Trade and Year	Thousand Metric Tons												
	USSR	Albania	Bulgaria	Czechoslovakia	East Germany	Hungary	Poland	Rumania	Communist China	North Korea	North Vietnam	Mongolia b/	Total
Exports	1,260	95	0	2	396	144	0	4,173	0	0	0	0	6,070
1952	1,339	82	0	1	394	403	0	4,916	0	0	0	0	7,135
1953	1,282	85	0	0	360	449	0	5,203	0	0	0	0	7,364
1954	1,634	123	122	5	448	325	0	5,017	0	0	0	0	7,675
1955	2,694	75	182	6	395	286	9	5,704	0	0	0	0	9,342
1956													
Total	8,189	460	304	20	1,993	1,607	9	25,013	0	0	0	0	37,586
Imports													
1952	4,105	45	298	214	45	16	365	26	956	0	0	0	6,070
1953	4,865	33	313	228	77	19	574	26	1,000	0	0	0	7,135
1954	4,794	40	322	232	106	54	794	22	1,000	0	0	0	7,364
1955	4,428	50	324	318	285	77	922	10	1,250	11	0	0	7,675
1956	5,077	51	356	347	393	297	1,039	10	1,750	22	0	0	9,342
Total	23,269	219	1,613	1,339	906	463	3,694	94	5,956	33	0	0	37,586
Net Exports or Net Imports c/													
1952	-2,845	50	-298	-212	351	128	-365	4,147	-956	0	0	0	0
1953	-3,526	49	-313	-227	317	384	-574	4,890	-1,000	0	0	0	0
1954	-3,532	45	-322	-227	254	395	-794	5,181	-1,000	0	0	0	0
1955	-2,170	73	-202	-312	163	246	-922	5,007	-1,250	-11	0	0	0
1956	-2,383	24	-174	-341	2	11	-1,039	5,694	-1,750	-22	0	0	0
Total	-15,080	241	-1,309	-1,319	1,087	1,144	-3,694	24,919	-5,956	-33	0	0	0

a. This table is a summary of data presented in Tables 9 through 39, pp. 20 through 35, below.  
b. Mongolian Peoples Republic.  
c. Net imports are indicated by a minus sign.

# INTRA-SINO-SOVIET BLOC TRADE IN PETROLEUM, 1952 AND 1956

(Thousand Metric Tons)



~~S-E-R-T~~

Table 2

Summary of Intra-Sino-Soviet Bloc Trade in Crude Oil, by Country a/  
1952-56

Type of Trade and Year	Thousand Metric Tons												
	USSR	Albania	Bulgaria	Czechoslovakia	East Germany	Hungary	Poland	Rumania	Communist China	North Korea	North Vietnam	Mongolia b/	Total
<b>Exports</b>													
1952	150	95	0	0	0	0	0	0	0	0	0	0	245
1953	200	82	0	0	0	38	0	99	0	0	0	0	419
1954	269	85	0	0	0	66	0	78	0	0	0	0	498
1955	434	123	122	0	0	78	0	36	0	0	0	0	793
1956	657	75	178	0	0	26	0	0	0	0	0	0	936
<b>Total</b>	<b>1,710</b>	<b>460</b>	<b>300</b>	<b>0</b>	<b>0</b>	<b>208</b>	<b>0</b>	<b>213</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,891</b>
<b>Imports</b>													
1952	0	0	0	0	0	0	95	0	0	0	0	0	245
1953	0	0	0	0	34	0	185	0	0	0	0	0	419
1954	0	0	0	0	60	0	238	0	0	0	0	0	498
1955	35	0	0	66	148	22	272	0	0	0	0	0	793
1956	75	0	0	78	256	81	196	0	0	0	0	0	936
<b>Total</b>	<b>110</b>	<b>0</b>	<b>0</b>	<b>144</b>	<b>498</b>	<b>103</b>	<b>986</b>	<b>0</b>	<b>1,050</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,891</b>
<b>Net Exports or Net Imports c/</b>													
1952	150	95	0	0	0	0	-95	0	0	0	0	0	0
1953	200	82	0	0	-34	38	-185	99	0	0	0	0	0
1954	269	85	0	0	-60	66	-238	78	0	0	0	0	0
1955	399	123	122	-66	-148	56	-272	36	0	0	0	0	0
1956	582	75	178	-78	-256	-55	-196	0	0	0	0	0	0
<b>Total</b>	<b>1,600</b>	<b>460</b>	<b>300</b>	<b>-144</b>	<b>-498</b>	<b>105</b>	<b>-986</b>	<b>213</b>	<b>-1,050</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

a. This table is a summary of data presented in Tables 9 through 38, pp. 20 through 35, below.  
b. Mongolian Peoples Republic.  
c. Net imports are indicated by a minus sign.

~~S-E-R-T~~

Table 3  
Summary of Intra-Sino-Soviet Bloc Trade in Petroleum Products, by Country a/  
1952-56

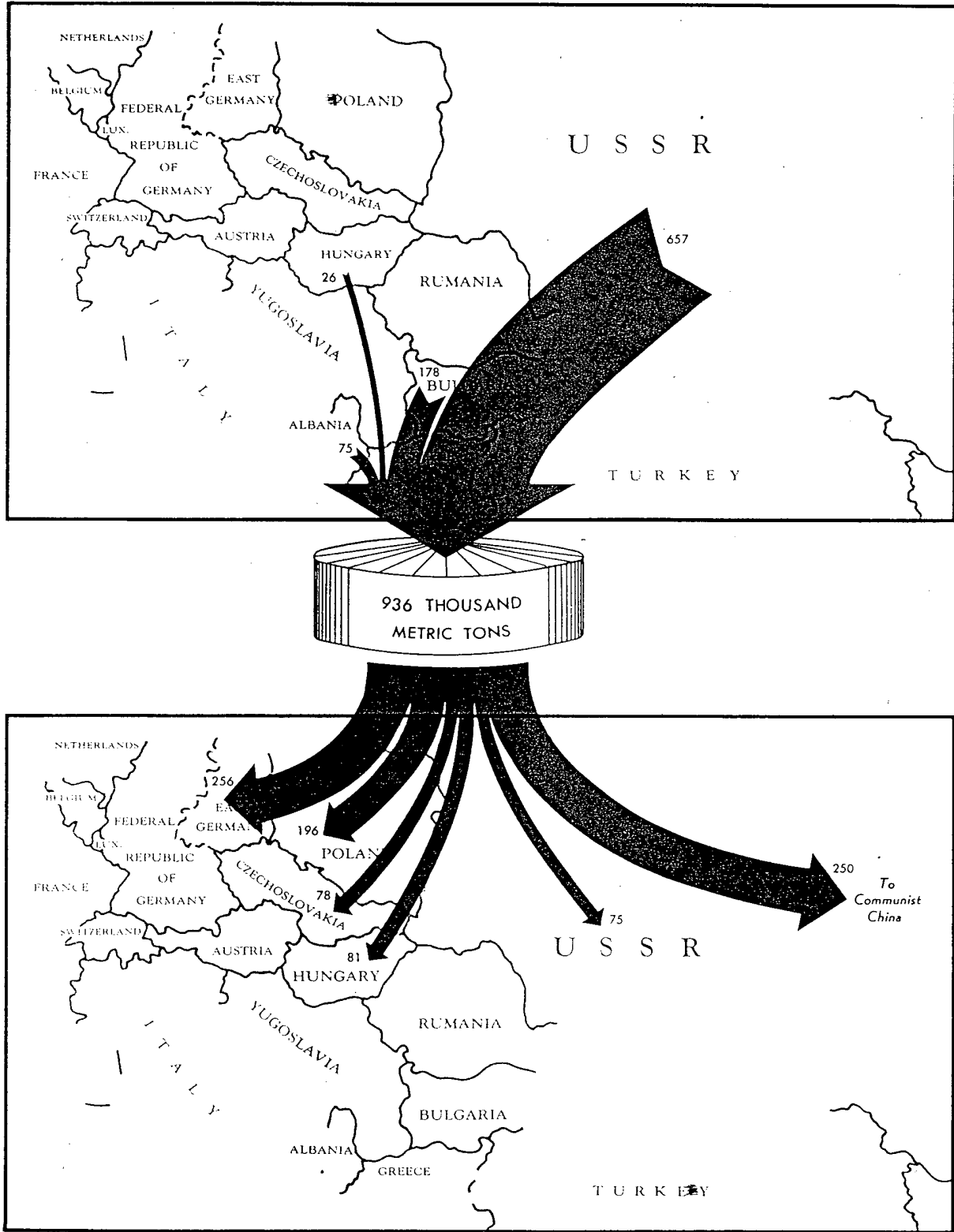
Type of Trade and Year	Thousand Metric Tons												
	USSR	Albania	Bulgaria	Czechoslovakia	East Germany	Hungary	Poland	Rumania	Communist China	North Korea	North Vietnam	Mongolia b/	Total
<b>Exports</b>													
1952	1,110	0	0	2	396	144	0	4,173	0	0	0	0	5,825
1953	1,139	0	0	1	394	365	0	4,817	0	0	0	0	6,716
1954	993	0	0	3	360	383	0	5,125	0	0	0	0	6,866
1955	1,200	0	0	6	448	247	0	4,981	0	0	0	0	6,882
1956	2,037	0	4	6	395	260	0	5,704	0	0	0	0	8,406
<b>Total</b>	<b>6,472</b>	<b>0</b>	<b>4</b>	<b>20</b>	<b>1,922</b>	<b>1,399</b>	<b>0</b>	<b>24,800</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34,692</b>
<b>Imports</b>													
1952	4,105	45	298	214	45	16	270	26	806	N.A.	0	N.A.	5,825
1953	4,865	33	313	228	43	19	389	26	800	N.A.	0	N.A.	6,716
1954	4,794	40	322	232	46	54	556	22	800	N.A.	0	N.A.	6,866
1955	4,393	50	324	252	55	55	650	10	1,000	N.A.	11	N.A.	6,882
1956	5,002	51	356	269	137	216	843	10	1,500	N.A.	22	N.A.	8,406
<b>Total</b>	<b>23,152</b>	<b>219</b>	<b>1,613</b>	<b>1,195</b>	<b>408</b>	<b>360</b>	<b>2,708</b>	<b>24</b>	<b>4,906</b>	<b>N.A.</b>	<b>33</b>	<b>N.A.</b>	<b>34,692</b>
<b>Net Exports or Net Imports c/</b>													
1952	-2,995	-45	-298	-212	351	128	270	4,147	-806	N.A.	0	N.A.	0
1953	-3,726	-33	-313	-227	351	346	389	4,791	-800	N.A.	0	N.A.	0
1954	-3,801	-40	-322	-227	314	329	556	5,103	-800	N.A.	0	N.A.	0
1955	-3,193	-50	-324	-246	311	192	650	4,971	-1,000	N.A.	-11	N.A.	0
1956	-2,965	-51	-352	-263	258	44	843	5,694	-1,500	N.A.	-22	N.A.	0
<b>Total</b>	<b>-16,680</b>	<b>-219</b>	<b>-1,609</b>	<b>-1,175</b>	<b>1,585</b>	<b>1,039</b>	<b>2,708</b>	<b>24,706</b>	<b>-4,906</b>	<b>N.A.</b>	<b>-33</b>	<b>N.A.</b>	<b>0</b>

a. This table is a summary of data presented in Tables 9 through 36, pp. 20 through 35, below.  
 b. Mongolian Peoples Republic.  
 c. Net imports are indicated by a minus sign.

Figure 2

# Intra-Sino-Soviet Bloc Trade in Crude Oil, 1956

~~SECRET~~

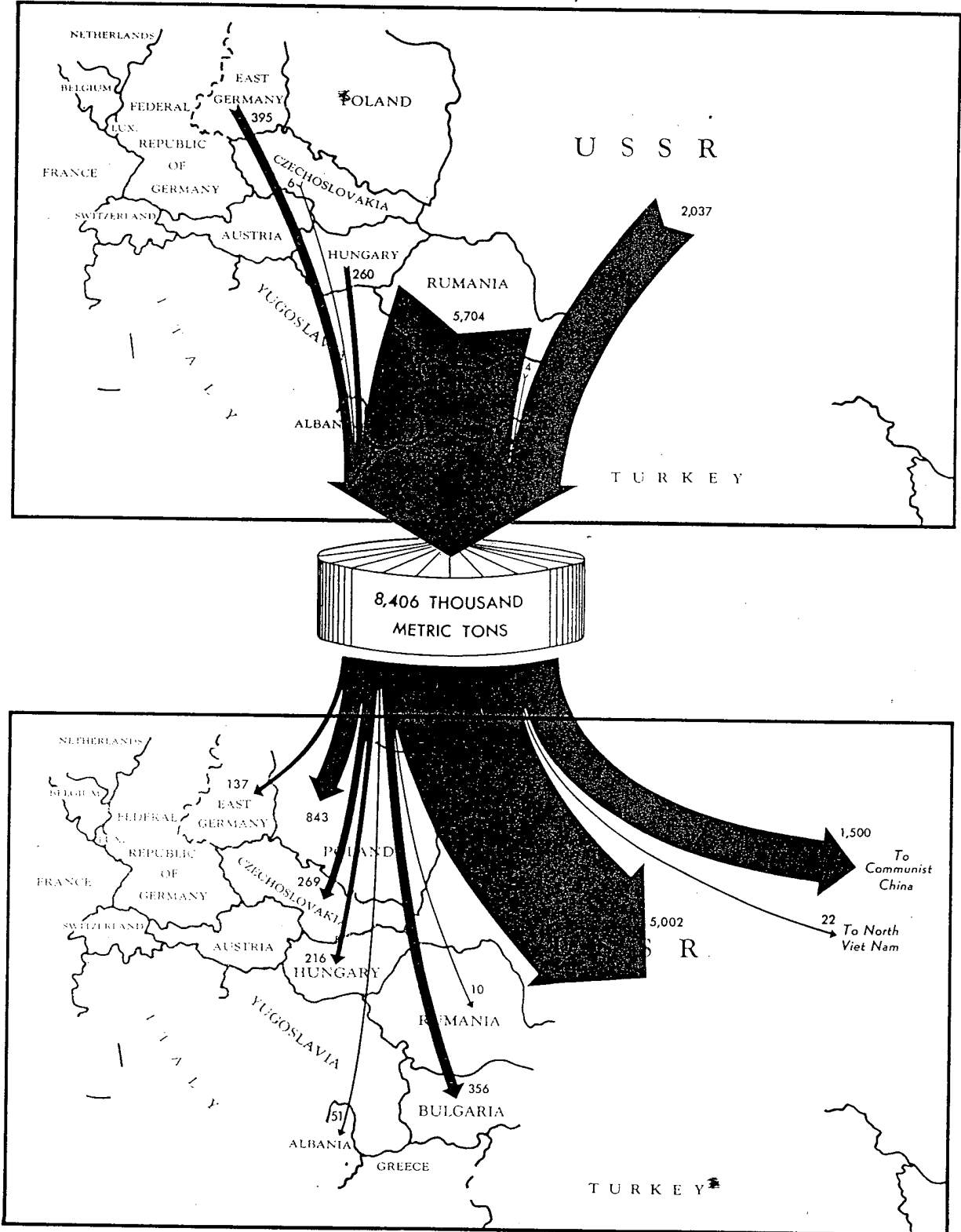


~~SECRET~~

Figure 3

# Intra-Sino-Soviet Bloc Trade In Petroleum Products, 1956

~~SECRET~~



~~SECRET~~



Table 4

Summary of Intra-Sino-Soviet Bloc Trade in Gasoline, by Country a/

1952-56

Type of Trade and Year	Thousand Metric Tons												
	USSR	Albania	Bulgaria	Czechoslovakia	East Germany	Hungary	Poland	Rumania	Communist China	North Korea	North Vietnam	Mongolia b/	Total
Exports													
1952	360	0	0	0	187	37	0	2,110	0	0	0	0	2,694
1953	356	0	0	0	212	49	0	2,432	0	0	0	0	3,049
1954	320	0	0	0	218	102	0	2,483	0	0	0	0	3,123
1955	302	0	0	0	224	48	0	2,511	0	0	0	0	3,085
1956	619	0	4	0	193	32	0	2,877	0	0	0	0	3,725
Total	1,957	0	4	0	1,034	268	0	12,413	0	0	0	0	15,676
Imports													
1952	2,140	18	92	52	25	5	121	21	220	N.A.	N.A.	N.A.	2,694
1953	2,480	14	107	55	20	2	130	21	220	N.A.	N.A.	N.A.	3,049
1954	2,477	14	106	48	20	37	183	18	220	N.A.	N.A.	N.A.	3,123
1955	2,226	20	105	55	40	11	340	6	275	N.A.	N.A.	N.A.	3,085
1956	2,536	17	124	59	40	56	467	6	413	N.A.	N.A.	N.A.	3,725
Total	11,859	83	534	269	145	111	1,241	72	1,348	N.A.	N.A.	N.A.	15,676
Net Exports or Net Imports c/													
1952	-1,780	-18	-92	-52	162	32	-121	2,089	-220	N.A.	N.A.	N.A.	0
1953	-2,124	-14	-107	-55	192	47	-130	2,411	-220	N.A.	N.A.	N.A.	0
1954	-2,157	-14	-106	-48	198	65	-183	2,465	-220	N.A.	N.A.	N.A.	0
1955	-1,924	-20	-105	-55	184	37	-340	2,505	-275	N.A.	N.A.	N.A.	0
1956	-1,917	-17	-120	-59	153	-24	-467	2,871	-413	N.A.	N.A.	N.A.	0
Total	-9,902	-83	-530	-269	689	157	-1,241	12,341	-1,348	N.A.	N.A.	N.A.	0

a. This table is a summary of data presented in Tables 9 through 38, pp. 20 through 35, below.  
 b. Mongolian Peoples Republic.  
 c. Net imports are indicated by a minus sign.

Table 5  
Summary of Intra-Sino-Soviet Bloc Trade in Kerosine, by Country a/  
1952-56

Type of Trade and Year	Thousand Metric Tons												
	USSR	Albania	Bulgaria	Czechoslovakia	East Germany	Hungary	Poland	Rumania	Communist China	North Korea	North Vietnam	Mongolia b/	Total
Exports	1952 425	0	0	0	99	19	0	471	0	0	0	0	1,014
1953 408	0	0	0	0	22	16	0	561	0	0	0	0	1,007
1954 290	0	0	0	0	48	48	0	641	0	0	0	0	979
1955 504	0	0	0	0	110	31	0	573	0	0	0	0	1,218
1956 793	0	0	0	0	121	30	0	625	0	0	0	0	1,569
Total	2,420	0	0	0	352	144	0	2,871	0	0	0	0	5,787
Imports	1952 501	5	70	24	0	1	35	2	376	N.A.	N.A.	N.A.	1,014
1953 488	3	61	26	0	4	4	47	2	376	N.A.	N.A.	N.A.	1,007
1954 501	3	61	27	0	4	4	7	0	376	N.A.	N.A.	N.A.	979
1955 560	2	64	29	31	70	0	19	0	470	N.A.	N.A.	N.A.	1,218
1956 634	2	66	31	31	70	0	48	0	705	N.A.	N.A.	N.A.	1,569
Total	2,684	15	324	137	140	2	156	4	2,303	N.A.	15	N.A.	5,787
Net Exports or Net Imports c/	1952 -76	-5	-70	-24	99	18	-35	469	-376	N.A.	N.A.	N.A.	0
1953 -80	-3	-61	-26	22	12	4	-47	559	-376	N.A.	N.A.	N.A.	0
1954 -211	-3	-61	-27	0	44	7	-7	641	-376	N.A.	N.A.	N.A.	0
1955 -56	-2	-64	-29	40	31	31	-19	573	-470	N.A.	N.A.	N.A.	0
1956 159	-2	-88	-31	51	30	30	-48	625	-705	N.A.	N.A.	N.A.	0
Total	-264	-15	-324	-137	212	135	-156	2,867	-2,303	N.A.	-15	N.A.	0

a. This table is a summary of data presented in Tables 9 through 38, pp. 20 through 35, below.  
b. Mongolian Peoples Republic.  
c. Net Imports are indicated by a minus sign.

Table 6  
Summary of Intra-Sino-Soviet Bloc Trade in Gas Oil, by Country a/  
1952-56

Type of Trade and Year	Thousand Metric Tons												
	USSR	Albania	Bulgaria	Czecho-slovakia	East Germany	Hungary	Poland	Rumania	Communist China	North Korea	North Vietnam	Mongolia b/	Total
Exports													
1952	177	0	0	0	104	51	0	818	0	0	0	0	1,150
1953	218	0	0	0	157	148	0	969	0	0	0	0	1,512
1954	271	0	0	0	141	172	0	1,107	0	0	0	0	1,691
1955	235	0	0	0	103	61	0	1,047	0	0	0	0	1,446
1956	309	0	0	0	75	68	0	1,107	0	0	0	0	1,559
Total	1,210	0	0	0	580	580	0	5,048	0	0	0	0	7,358
Imports													
1952	810	17	64	35	0	0	87	1	136	0	0	0	1,150
1953	1,053	13	74	37	0	8	190	1	136	0	0	0	1,512
1954	1,025	19	117	39	0	8	347	0	136	0	0	0	1,691
1955	813	25	93	42	0	20	283	0	170	0	0	0	1,446
1956	933	31	104	45	0	10	177	0	255	0	0	0	1,559
Total	4,634	105	452	198	0	46	1,084	2	833	0	4	0	7,358
Net Exports or Net Imports c/													
1952	633	-17	-64	-35	104	51	-87	817	-136	0	0	0	0
1953	835	-13	-74	-37	157	160	-190	968	-136	0	0	0	0
1954	754	-19	-117	-39	141	164	-347	1,107	-136	0	0	0	0
1955	578	-25	-93	-42	103	41	-283	1,047	-170	0	0	0	0
1956	624	-31	-104	-45	75	58	-177	1,107	-255	0	-4	0	0
Total	-3,424	-105	-452	-198	580	474	-1,084	5,046	-833	0	-4	0	0

a. This table is a summary of data presented in Tables 9 through 38, pp. 20 through 35, below.  
b. Mongolian Peoples Republic.  
c. Net imports are indicated by a minus sign.

Table 7

Summary of Intra-Sino-Soviet Bloc Trade in Residual Fuel Oil, by Country a/  
1952-56

Type of Trade and Year	Thousand Metric Tons												
	USSR	Albania	Bulgaria	Czechoslovakia	East Germany	Hungary	Poland	Romania	Communist China	North Korea	North Vietnam	Mongolia b/	Total
<b>Exports</b>													
1952	62	0	0	0	0	25	0	716	0	0	0	0	803
1953	55	0	0	0	0	129	0	787	0	0	0	0	971
1954	25	0	0	0	0	55	0	813	0	0	0	0	893
1955	36	0	0	0	0	85	0	776	0	0	0	0	897
1956	145	0	0	0	0	103	0	1,009	0	0	0	0	1,257
Total	323	0	0	0	0	397	0	4,101	0	0	0	0	4,821
<b>Imports</b>													
1952	598	0	50	103	10	10	20	0	12	0	0	0	803
1953	782	0	43	110	6	1	17	0	12	0	0	0	971
1954	730	0	12	118	6	1	14	0	12	0	0	0	893
1955	710	0	25	126	1	20	3	0	12	0	0	0	897
1956	806	0	23	134	1	145	126	0	22	0	0	0	1,257
Total	3,626	0	153	591	24	177	180	0	70	0	0	0	4,821
<b>Net Exports or Net Imports c/</b>													
1952	-536	0	-50	-103	-10	15	-20	716	-12	0	0	0	0
1953	-727	0	-43	-110	-6	128	-17	787	-12	0	0	0	0
1954	-705	0	-12	-118	-6	54	-14	813	-12	0	0	0	0
1955	-674	0	-25	-126	-1	65	-3	776	-12	0	0	0	0
1956	-661	0	-23	-134	-1	42	-126	1,009	-22	0	0	0	0
Total	-3,103	0	-153	-591	-24	220	-180	4,101	-70	0	0	0	0

a. This table is a summary of data presented in Tables 9 through 35, pp. 20 through 35, below.  
b. Mongolian Peoples Republic.  
c. Net imports are indicated by a minus sign.

~~SECRET~~

Table 8

Summary of Intra-Sino-Soviet Bloc Trade in Lubricants, by Country a/  
1952-56

Type of Trade and Year	Thousand Metric Tons										Total	
	USSR	Albania	Bulgaria	Czecho-slovakia	East Germany	Hungary	Poland	Romania	Communist China	North Korea		North Vietnam
<b>Exports</b>												
1952	86	0	0	2	6	12	0	58	0	0	0	0
1953	102	0	0	1	3	3	0	68	0	0	0	0
1954	87	0	0	5	1	6	0	81	0	0	0	0
1955	123	0	0	6	11	22	0	74	0	0	0	0
1956	171	0	0	6	6	27	0	86	0	0	0	0
Total	569	0	0	20	27	70	0	357	0	0	0	0
<b>Imports</b>												
1952	56	5	22	0	10	0	7	2	62	N.A.	N.A.	N.A.
1953	62	3	28	0	17	4	5	2	56	N.A.	N.A.	N.A.
1954	61	4	26	0	20	4	5	4	56	N.A.	N.A.	N.A.
1955	84	3	37	0	26	4	5	4	73	N.A.	N.A.	N.A.
1956	93	1	37	0	26	5	25	4	105	N.A.	N.A.	N.A.
Total	386	16	150	0	99	17	47	16	352	N.A.	N.A.	N.A.
<b>Net Exports or Net Imports c/</b>												
1952	30	-5	-22	2	-4	12	-7	56	-62	N.A.	N.A.	N.A.
1953	40	-3	-28	1	-14	-1	-5	66	-56	N.A.	N.A.	N.A.
1954	26	-4	-26	5	-19	2	-5	77	-56	N.A.	N.A.	N.A.
1955	39	-3	-37	6	-15	18	-5	70	-73	N.A.	N.A.	N.A.
1956	78	-1	-37	6	-20	22	-25	82	-105	N.A.	N.A.	N.A.
Total	213	-16	-150	20	-72	53	-47	351	-352	N.A.	N.A.	N.A.

a. This table is a summary of data presented in Tables 9 through 39, pp. 20 through 35, below.  
 b. Mongolian Peoples Republic.  
 c. Net Imports are indicated by a minus sign.

~~SECRET~~

~~S-E-C-R-E-T~~

Table 9

Weight of Exports of Petroleum from the USSR  
to Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

Type of Product	Thousand Metric Tons				
	1952	1953	1954	1955	1956
Crude oil	150	200	269	434	657
Gasoline	360	356	320	302	619
Kerosine	425	408	290	504	793
Gas oil	177	218	271	235	309
Residual fuel oil	62	55	25	36	145
Lubricants	86	102	87	123	171
Total	<u>1,260</u>	<u>1,339</u>	<u>1,262</u>	<u>1,634</u>	<u>2,694</u>

a. For methodology, see Appendix B.

Table 10

Weight of Exports of Petroleum from the USSR  
to Other Sino-Soviet Bloc Countries  
by Destination a/  
1952-56

Destination	Thousand Metric Tons				
	1952	1953	1954	1955	1956
European Satellites					
Albania	5	5	5	5	5
Bulgaria	244	256	65	112	107
Czechoslovakia	3	3	3	3	3
East Germany	30	35	35	218	296
Hungary	1	2	2	2	42
Poland	25	42	233	152	529
Rumania	22	22	22	10	10
Subtotal	<u>330</u>	<u>365</u>	<u>365</u>	<u>502</u>	<u>992</u>
Communist China	930	974	897	1,132	1,702
Total	<u>1,260</u>	<u>1,339</u>	<u>1,262</u>	<u>1,634</u>	<u>2,694</u>

a. For methodology, see Appendix B.

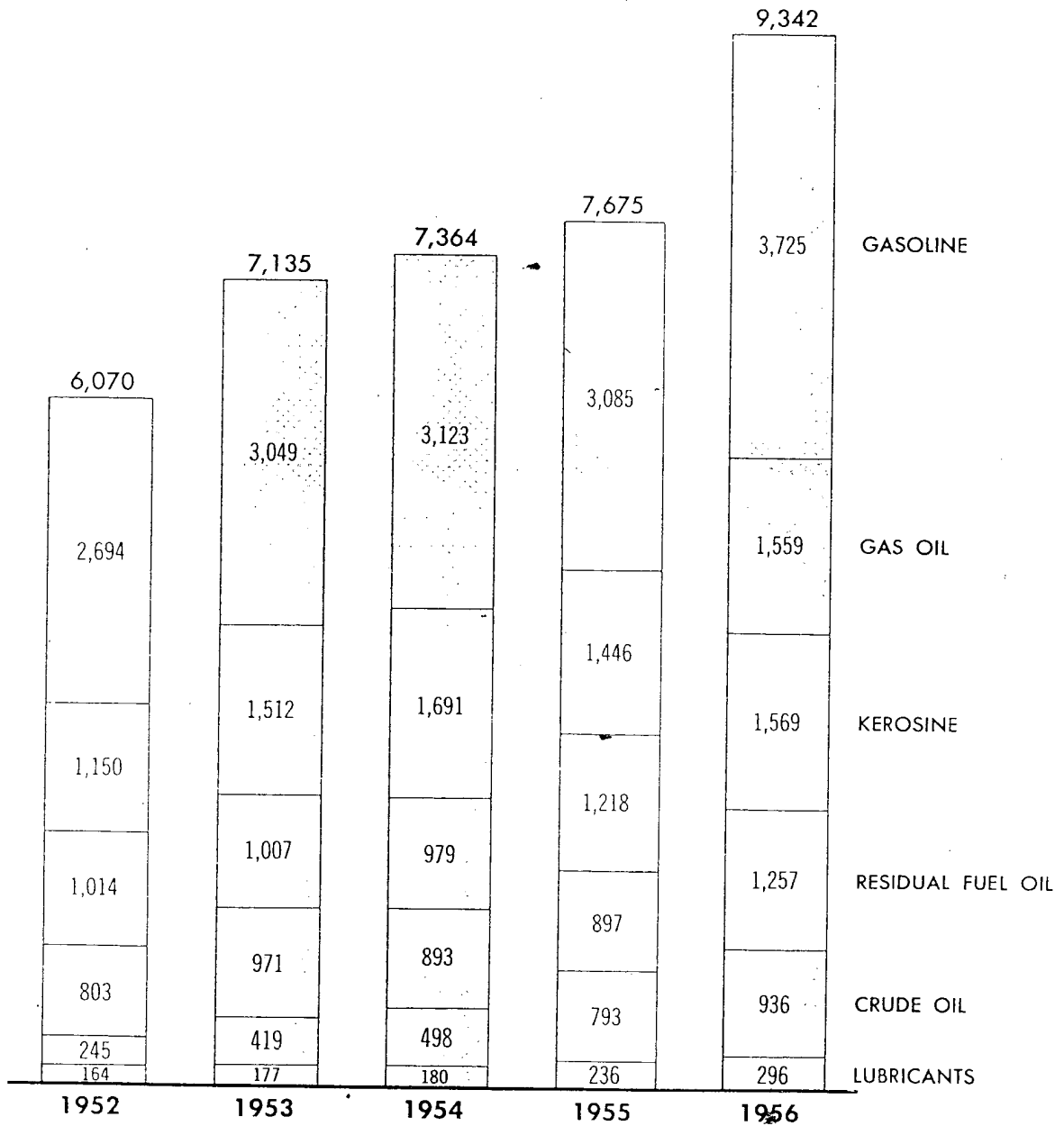
~~S-E-C-R-E-T~~

~~SECRET~~

Figure 4

### WEIGHT OF PETROLEUM MOVED WITHIN THE SINO-SOVIET BLOC, 1952-56

(Thousand Metric Tons)



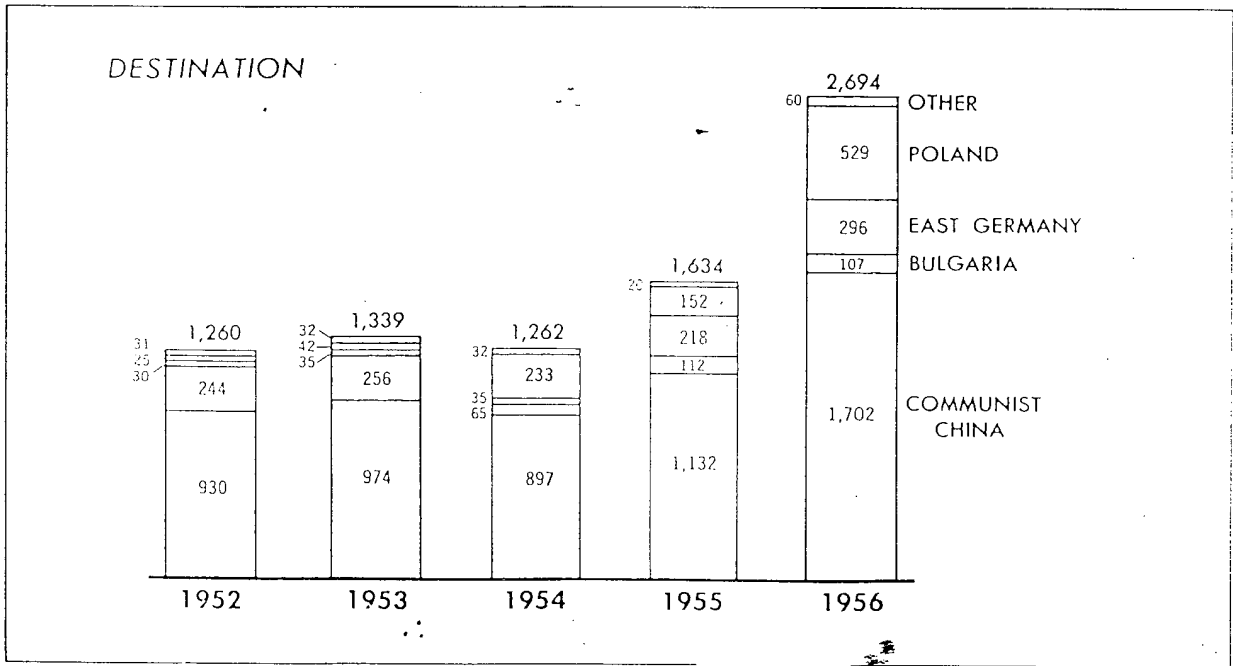
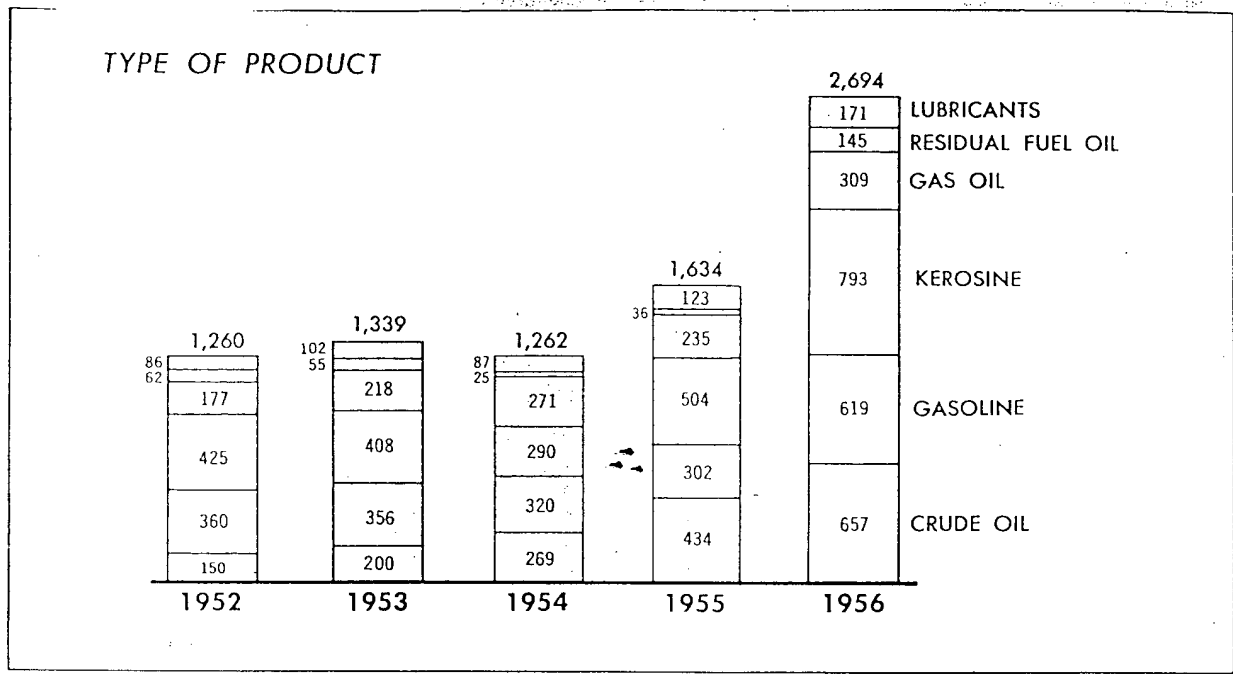
~~SECRET~~

~~SECRET~~

Figure 5

# EXPORTS OF PETROLEUM FROM THE USSR TO OTHER COUNTRIES OF THE SINO-SOVIET BLOC, 1952-56

(Thousand Metric Tons)



26346 1-58

~~SECRET~~



~~SECRET~~

Table 11

Weight of Imports of Petroleum by the USSR  
from Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

Type of Product	Thousand Metric Tons				
	1952	1953	1954	1955	1956
Crude oil	0	0	0	35	75
Gasoline	2,140	2,480	2,477	2,226	2,536
Kerosine	501	488	501	560	634
Gas oil	810	1,053	1,025	813	933
Residual fuel oil	598	782	730	710	806
Lubricants	56	62	61	84	93
Total	<u>4,105</u>	<u>4,865</u>	<u>4,794</u>	<u>4,428</u>	<u>5,077</u>

a. For methodology, see Appendix B.

Table 12

Weight of Imports of Petroleum by the USSR  
from Other Sino-Soviet Bloc Countries  
by Origin a/  
1952-56

Origin	Thousand Metric Tons				
	1952	1953	1954	1955	1956
Albania	0	0	0	35	75
East Germany	310	252	158	213	219
Hungary	75	336	336	180	223
Rumania	3,720	4,277	4,300	4,000	4,560
Total	<u>4,105</u>	<u>4,865</u>	<u>4,794</u>	<u>4,428</u>	<u>5,077</u>

a. For methodology, see Appendix B.

~~SECRET~~

~~S-E-C-R-E-T~~

Table 13

Weight of Exports of Crude Oil from Albania  
to Other Sino-Soviet Bloc Countries  
by Destination a/  
1952-56

Thousand Metric Tons			
<u>Year</u>	<u>Poland</u>	<u>USSR</u>	<u>Total</u>
1952 <u>b/</u>	95	0	95
1953 <u>c/</u>	82	0	82
1954 <u>d/</u>	85	0	85
1955 <u>e/</u>	88	35	123
1956 <u>e/</u>	0	75	75

a. Undetermined quantities of bitumen are also exported.

b. 11/

c. 12/

d. 13/

e. For methodology, see Appendix B.

Table 14

Weight of Imports of Petroleum Products by Albania  
from Other Sino-Soviet Bloc Countries  
by Type of Product  
1952-56

Thousand Metric Tons					
<u>Type of Product</u>	<u>1952 a/</u>	<u>1953 b/</u>	<u>1954 c/</u>	<u>1955 d/</u>	<u>1956 e/</u>
Gasoline	18	14	14	20	17
Kerosine	5	3	3	2	2
Gas oil	17	13	19	25	31
Lubricants	5	3	4	3	1
Total	<u>45</u>	<u>33</u>	<u>40</u>	<u>50</u>	<u>51</u>
a. <u>14/</u>	b. <u>15/</u>	c. <u>16/</u>	d. <u>17/</u>	e. <u>18/</u>	

- 22 -

~~S-E-C-R-E-T~~

~~S-E-C-R-E-T~~

Table 15

Weight of Imports of Petroleum Products by Albania  
from Other Sino-Soviet Bloc Countries  
by Origin  
1952-56

Thousand Metric Tons					
<u>Origin</u>	<u>1952 a/</u>	<u>1953 b/</u>	<u>1954 c/</u>	<u>1955 d/</u>	<u>1956 e/</u>
USSR	5	5	5	5	5
Rumania	40	28	35	45	46
Total	<u>45</u>	<u>33</u>	<u>40</u>	<u>50</u>	<u>51</u>
a.	<u>19/</u>				d. <u>22/</u>
b.	<u>20/</u>				e. <u>23/</u>
c.	<u>21/</u>				

Table 16

Weight of Exports of Crude Oil from Bulgaria  
to Other Sino-Soviet Bloc Countries  
by Destination a/  
1952-56

Thousand Metric Tons					
<u>Destination</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>
Czechoslovakia	0	0	0	66	78
East Germany	0	0	0	0	35
Hungary	0	0	0	22	45
Poland	0	0	0	34	24 b/
Total	<u>0</u>	<u>0</u>	<u>0</u>	<u>122</u>	<u>182</u>

a. For methodology, see Appendix B.

b. Poland reports that about 4,000 tons of this amount was gasoline.

~~S-E-C-R-E-T~~

~~S-E-C-R-E-T~~

Table 17

Weight of Imports of Petroleum Products by Bulgaria  
from Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

Type of Product	Thousand Metric Tons				
	1952	1953	1954	1955	1956
Gasoline	92	107	106	105	124
Kerosine	70	61	61	64	68
Gas oil	64	74	117	93	104
Residual fuel oil	50	43	12	25	23
Lubricants	22	28	26	37	37
Total	<u>298</u>	<u>313</u>	<u>322</u>	<u>324</u>	<u>356</u>

a. For methodology, see Appendix B.

Table 18

Weight of Imports of Petroleum Products by Bulgaria  
from Other Sino-Soviet Bloc Countries  
by Origin a/  
1952-56

Origin	Thousand Metric Tons				
	1952	1953	1954	1955	1956
USSR	244	256	65	112	107
European Satellites					
Czechoslovakia	2	1	5	6	6
East Germany	0	1	0	2	17
Hungary	4	4	7	12	9
Rumania	48	51	245	192	217
Subtotal	<u>54</u>	<u>57</u>	<u>257</u>	<u>212</u>	<u>249</u>
Total	<u>298</u>	<u>313</u>	<u>322</u>	<u>324</u>	<u>356</u>

a. For methodology, see Appendix B.

~~S-E-C-R-E-T~~

~~SECRET~~

Table 19

Weight of Exports of Petroleum Products  
from Czechoslovakia to Bulgaria a/  
1952-56

Thousand Metric Tons	
<u>Year</u>	<u>Amount</u>
1952	2
1953	1
1954	5
1955	6
1956	6

a. All lubricants. Data taken from Table 18, p. 24, above. Bulgaria was the only recipient of petroleum products from Czechoslovakia.

Table 20

Weight of Imports of Petroleum by Czechoslovakia  
from Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

Thousand Metric Tons					
<u>Type of Product</u>	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>
Crude oil b/	0	0	0	66	78
Gasoline	52	55	48	55	59
Kerosine	24	26	27	29	31
Gas oil	35	37	39	42	45
Residual fuel oil	103	110	118	126	134
Lubricants	0	0	0	0	0
Total	<u>214</u>	<u>228</u>	<u>232</u>	<u>318</u>	<u>347</u>

a. For methodology, see Appendix B.  
b. Data taken from Table 16, p. 23, above.

~~SECRET~~

~~S-E-C-R-E-T~~

Table 21

Weight of Imports of Petroleum by Czechoslovakia  
from Other Sino-Soviet Bloc Countries  
by Origin a/  
1952-56

Origin	Thousand Metric Tons				
	1952	1953	1954	1955	1956
USSR	3	3	3	3	3
European Satellites					
Bulgaria	0	0	0	66	78
East Germany	11	11	0	1	1
Hungary	0	0	0	3	3
Rumania	200	214	229	245	262
Subtotal	<u>211</u>	<u>225</u>	<u>229</u>	<u>315</u>	<u>344</u>
Total	<u>214</u>	<u>228</u>	<u>232</u>	<u>318</u>	<u>347</u>

a. For methodology, see Appendix B.

Table 22

Weight of Exports of Petroleum Products from East Germany  
to Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

Type of Product	Thousand Metric Tons				
	1952	1953	1954	1955	1956
Gasoline	187	212	218	224	193
Kerosine	99	22	0	110	121
Gas oil	104	157	141	103	75
Residual fuel oil	0	0	0	0	0
Lubricants	6	3	1	11	6
Total	<u>396</u>	<u>394</u>	<u>360</u>	<u>448</u>	<u>395</u>

a. For methodology, see Appendix B.

~~S-E-C-R-E-T~~

~~SECRET~~

Table 23

Weight of Exports of Petroleum Products from East Germany  
to Other Sino-Soviet Bloc Countries  
by Destination a/  
1952-56

<u>Destination</u>	<u>Thousand Metric Tons</u>				
	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>
USSR	310	252	158	213	219
European Satellites					
Bulgaria	0	1	0	2	17
Czechoslovakia	11	11	0	1	1
Hungary	0	7	42	3	3
Poland	75	123	160	229	155
Subtotal	<u>86</u>	<u>142</u>	<u>202</u>	<u>235</u>	<u>176</u>
Total	<u>396</u>	<u>394</u>	<u>360</u>	<u>448</u>	<u>395</u>

a. For methodology, see Appendix B.

Table 24

Weight of Imports of Petroleum by East Germany  
from Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

<u>Type of Product</u>	<u>Thousand Metric Tons</u>				
	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>
Crude oil	0	34	60	148	256
Gasoline	25	20	20	40	40
Kerosine	0	0	0	70	70
Residual fuel oil	10	6	6	1	1
Lubricants	10	17	20	26	26
Total	<u>45</u>	<u>77</u>	<u>106</u>	<u>285</u>	<u>393</u>

a. For methodology, see Appendix B.

~~SECRET~~

~~S E C R E T~~

Table 25

Weight of Imports of Petroleum by East Germany  
from Other Sino-Soviet Bloc Countries  
by Origin a/  
1952-56

Thousand Metric Tons					
Origin	1952	1953	1954	1955	1956
USSR	30	35	35	218	296
European Satellites					
Bulgaria	0	0	0	0	35
Hungary	5	21	48	27	22
Rumania	10	21	23	40	40
Subtotal	<u>15</u>	<u>42</u>	<u>71</u>	<u>67</u>	<u>97</u>
Total	<u>45</u>	<u>77</u>	<u>106</u>	<u>285</u>	<u>393</u>

a. For methodology, see Appendix B.

Table 26

Weight of Exports of Petroleum from Hungary  
to Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

Thousand Metric Tons					
Type of Product	1952	1953	1954	1955	1956
Crude oil	0	38	66	78	26
Gasoline	37	49	102	48	32
Kerosine	19	16	48	31	30
Gas oil	51	163	172	61	68
Residual fuel oil	25	129	55	85	103
Lubricants	12	3	6	22	27
Total	<u>144</u>	<u>403</u>	<u>449</u>	<u>325</u>	<u>286</u>

a. For methodology, see Appendix B.

~~S E C R E T~~



~~S-E-C-R-E-T~~

Table 27

Weight of Exports of Petroleum from Hungary  
to Other Sino-Soviet Bloc Countries  
by Destination a/  
1952-56

<u>Destination</u>	<u>Thousand Metric Tons</u>				
	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>
USSR	75	336	336	180	223
European Satellites					
Bulgaria	4	4	7	12	9
Czechoslovakia	0	0	0	3	3
East Germany	5	21	48	27	22
Poland	50	38	58	103	29
Rumania	4	4	0	0	0
Subtotal	<u>63</u>	<u>67</u>	<u>113</u>	<u>145</u>	<u>63</u>
Communist China	6	0	0	0	0
Total	<u>144</u>	<u>403</u>	<u>449</u>	<u>325</u>	<u>286</u>

a. For methodology, see Appendix B.

~~S-E-C-R-E-T~~

Table 28

Weight of Imports of Petroleum by Hungary  
from Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

Thousand Metric Tons					
Type of Product	1952	1953	1954	1955	1956
Crude oil	0	0	0	22	81
Gasoline	5	2	37	11	56
Kerosine	1	4	4	0	0
Gas oil	b/	8	8	20	10
Residual fuel oil	10	1	1	20	145
Lubricants	0	4	4	4	5
Total	<u>16</u>	<u>19</u>	<u>54</u>	<u>77</u>	<u>297</u>

a. For methodology, see Appendix B.

b. Negligible.

Table 29

Weight of Imports of Petroleum by Hungary  
from Other Sino-Soviet Bloc Countries  
by Origin a/  
1952-56

Thousand Metric Tons					
Origin	1952	1953	1954	1955	1956
USSR	1	2	2	2	42
European Satellites					
Bulgaria	0	0	0	22	45
East Germany	0	7	42	3	3
Rumania	15	10	10	50	207
Subtotal	<u>15</u>	<u>17</u>	<u>52</u>	<u>75</u>	<u>255</u>
Total	<u>16</u>	<u>19</u>	<u>54</u>	<u>77</u>	<u>297</u>

a. For methodology, see Appendix B.

~~S-E-C-R-E-T~~

~~S E C R E T~~

Table 30

Weight of Imports of Petroleum by Poland  
from Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

Type of Product	Thousand Metric Tons				
	1952	1953	1954	1955	1956
Crude oil	95	185	238	272	196
Gasoline	121	130	183	340	467
Kerosine	35	47	7	19	48
Gas oil	87	190	347	283	177
Residual fuel oil	20	17	14	3	126
Lubricants	7	5	5	5	25
Total	<u>365</u>	<u>574</u>	<u>794</u>	<u>922</u>	<u>1,039</u>

a. For methodology, see Appendix B.

Table 31

Weight of Imports of Petroleum by Poland  
from Other Sino-Soviet Bloc Countries  
by Origin a/  
1952-56

Origin	Thousand Metric Tons				
	1952	1953	1954	1955	1956
USSR	25	42	233	152	529
European Satellites					
Albania	95	82	85	88	0
Bulgaria	0	0	0	34	24
East Germany	75	123	160	229	155
Hungary	50	38	58	103	29
Rumania	120	289	258	316	302
Subtotal	<u>340</u>	<u>532</u>	<u>561</u>	<u>770</u>	<u>510</u>
Total	<u>365</u>	<u>574</u>	<u>794</u>	<u>922</u>	<u>1,039</u>

a. For methodology, see Appendix B.

~~S E C R E T~~

~~SECRET~~

Table 32

Weight of Exports of Petroleum from Rumania  
to Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

Type of Product	Thousand Metric Tons				
	1952	1953	1954	1955	1956
Crude oil	0	99	78	36	0
Gasoline	2,110	2,432	2,483	2,511	2,877
Kerosine	471	561	641	573	625
Gas oil	818	969	1,107	1,047	1,107
Residual fuel oil	716	787	813	776	1,009
Lubricants	58	68	81	74	86
Total	<u>4,173</u>	<u>4,916</u>	<u>5,203</u>	<u>5,017</u>	<u>5,704</u>

a. For methodology, see Appendix B.

Table 33

Weight of Exports of Petroleum from Rumania  
to Other Sino-Soviet Bloc Countries  
by Destination a/  
1952-56

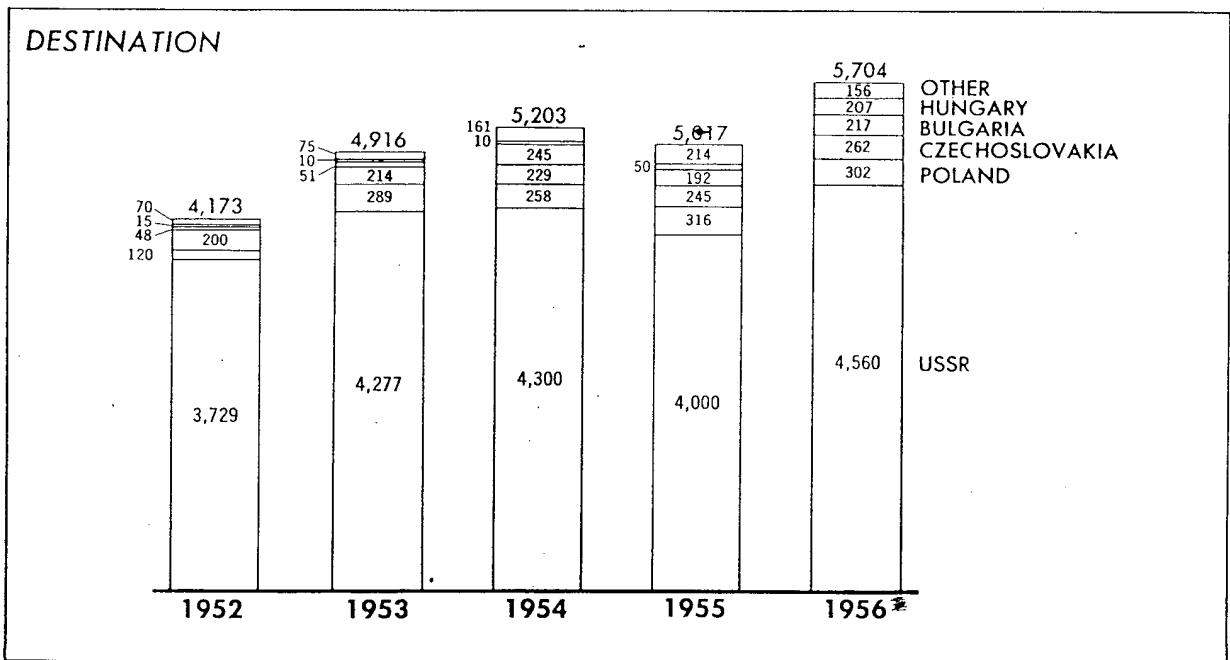
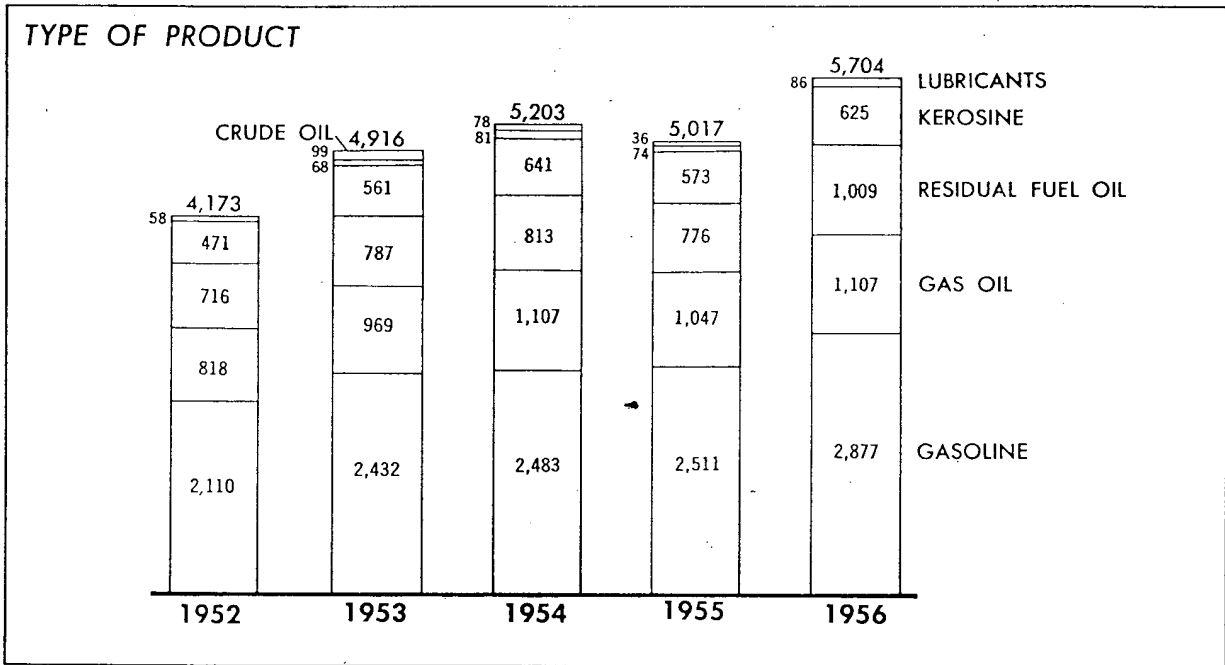
Destination	Thousand Metric Tons				
	1952	1953	1954	1955	1956
USSR	3,720	4,277	4,300	4,000	4,560
European Satellites					
Albania	40	28	35	45	46
Bulgaria	48	51	245	192	217
Czechoslovakia	200	214	229	245	262
East Germany	10	21	23	40	40
Hungary	15	10	10	50	207
Poland	120	289	258	316	302
Subtotal	<u>433</u>	<u>613</u>	<u>800</u>	<u>888</u>	<u>1,074</u>
Communist China	20	26	103	118	48
North Vietnam	0	0	0	11	22
Subtotal	<u>20</u>	<u>26</u>	<u>103</u>	<u>129</u>	<u>70</u>
Total	<u>4,173</u>	<u>4,916</u>	<u>5,203</u>	<u>5,017</u>	<u>5,704</u>

a. For methodology, see Appendix B.

~~SECRET~~

## EXPORTS OF PETROLEUM FROM RUMANIA TO OTHER COUNTRIES OF THE SINO-SOVIET BLOC, 1952-56

(Thousand Metric Tons)



~~SECRET~~

Table 34

Weight of Imports of Petroleum Products by Rumania  
from Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

<u>Type of Product</u>	<u>Thousand Metric Tons</u>				
	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>
Gasoline	21	21	18	6	6
Kerosine	2	2	0	0	0
Gas oil	1	1	0	0	0
Lubricants	2	2	4	4	4
Total	<u>26</u>	<u>26</u>	<u>22</u>	<u>10</u>	<u>10</u>

a. For methodology, see Appendix B.

Table 35

Weight of Imports of Petroleum Products by Rumania  
from Other Sino-Soviet Bloc Countries  
by Origin a/  
1952-56

<u>Year</u>	<u>Thousand Metric Tons</u>		
	<u>USSR</u>	<u>Hungary</u>	<u>Total</u>
1952	22	4	26
1953	22	4	26
1954	22	0	22
1955	10	0	10
1956	10	0	10

a. For methodology, see Appendix B.

~~SECRET~~

~~S-E-C-R-E-T~~

Table 36

Weight of Imports of Petroleum by Communist China  
from Other Sino-Soviet Bloc Countries  
by Type of Product a/  
1952-56

Type of Product	Thousand Metric Tons				
	1952	1953	1954	1955	1956
Crude oil	150	200	200	250	250
Gasoline	220	220	220	275	413
Kerosine	376	376	376	470	705
Gas oil	136	136	136	170	255
Residual fuel oil	12	12	12	12	22
Lubricants	62	56	56	73	105
Total	<u>956</u>	<u>1,000</u>	<u>1,000</u>	<u>1,250</u>	<u>1,750</u>

a. For methodology, see Appendix B.

Table 37

Weight of Imports of Petroleum by Communist China  
from Other Sino-Soviet Bloc Countries  
by Origin a/  
1952-56

Origin	Thousand Metric Tons				
	1952	1953	1954	1955	1956
USSR	930	974	897	1,132	1,702
European Satellites					
Hungary	6	0	0	0	0
Rumania	20	26	103	118	48
Subtotal	<u>26</u>	<u>26</u>	<u>103</u>	<u>118</u>	<u>48</u>
Total	<u>956</u>	<u>1,000</u>	<u>1,000</u>	<u>1,250</u>	<u>1,750</u>

a. For methodology, see Appendix B.

~~S-E-C-R-E-T~~

~~SECRET~~

Table 38

Weight of Imports of Petroleum Products  
by North Vietnam from Rumania a/  
1952-56

Thousand Metric Tons		
<u>Product</u>	<u>1955</u>	<u>1956</u>
Gasoline	7	7
Kerosine	4	11
Gas oil	0	4
Total	<u>11</u>	<u>22</u>

a. For methodology, see Appendix B.

~~SECRET~~



~~SECRET~~

APPENDIX B

METHODOLOGY

1. USSR -- Tables 9, 10, 11, and 12.\*

Trade in crude oil and petroleum products of the USSR with Albania, Bulgaria, Czechoslovakia, East Germany, Hungary, and Poland is explained in the methodologies for those countries. The breakdown by type of product (Tables 9 and 11) has been derived from the information given under each country. In all cases of the presentation of product breakdowns, the data are aggregates of the information found in the sources cited in the methodology for the particular country.

Exports of petroleum products by the USSR to Rumania during 1952-56 were in the form of high-quality aviation fuels and lubricants. It is believed that during 1952-54 exports were constant and primarily aviation fuels. 24/ In late 1954, there was evidence that Rumania was producing sufficient jet fuel to export to Bulgaria, Hungary, and the Soviet forces in Austria. 25/ It is assumed, therefore, that the dependence of Rumania on the USSR for aviation fuels decreased in 1955 and 1956.

Estimated exports of crude oil and petroleum products from the USSR to Communist China for each of the years 1952-55 26/ and for the whole period 1953-56 27/ are available. In the years 1953-55 a total of 3,250,000 tons of petroleum was imported by Communist China from other countries of the Sino-Soviet Bloc. From 1953 through 1956 a total of 5 million tons was imported. By subtraction it can be estimated that in 1956 imports by Communist China from the rest of the Bloc amounted to 1,750,000 tons. The only year for which estimates have been broken down both by country of origin and type of product is 1955.\*\* This product mix for 1955 is applied to the estimated total imports of petroleum for 1952-56. Tanker shipments from Rumania\*\*\*

\* Appendix A, pp. 20 and 21, above.

\*\* The breakdown of total imports by country of origin and by type of products represents a somewhat arbitrary allocation based on the limited pertinent information including military requirements and sea shipments from Rumania. The details of the methodology are available in CIA files.

\*\*\* See methodology for Communist China, p. 47, below.

~~SECRET~~

[p. 36 blank]

~~S-E-C-R-E-T~~

during 1952-56 are subtracted, and the remainders are assumed to have originated in the USSR.

It is estimated that 3,720,000 tons of petroleum products were imported by the USSR from Rumania in 1952 <sup>28/</sup> and 4,277,000 tons in 1953. <sup>29/</sup> It is believed that imports from Rumania were about the same in 1954. Since exports to the USSR do not appear to have been as great in 1955, it is assumed that they approximated 4 million tons. There are four means of transporting petroleum from Rumania to the USSR -- by pipeline to Reni; by barge down the Danube from Giurgiu; by tanker from Constanta to the Soviet Black Sea ports; and, since 1954, by tanker shipments from Constanta to the Soviet ports in the Far East. It is believed that shipments by the first three means were about the same in 1956 as in 1953. <sup>30/</sup> By adding the tanker shipments from Constanta to the Soviet Far East <sup>31/</sup> in 1956, it is estimated that Rumania shipped approximately 4,560,000 tons of petroleum to the USSR in 1956. The product breakdown of Soviet imports of petroleum during 1952-56 is based on the agreements between Rumania and the USSR following World War II. <sup>32/</sup> Adjustments have been made in the light of the increased relative importance of gas oil at the expense of the relative importance of kerosine and fuel oil.

2. Albania -- Table 13.\*

In 1955, Poland reported imports of about 412,000 tons of crude oil from the USSR, <sup>33/</sup> and 263,000 tons were shipped from Austria on the Soviet account in addition to 10,000 tons under a trade agreement of Austria with Poland. <sup>34/</sup> About 61,000 tons were shipped from the Soviet port of Novorossisk on the Black Sea to Poland by means of Free World tankers. <sup>35/</sup> In the preceding 3 years, average annual shipments from Albania to Poland exceeded 85,000 tons; therefore, it is assumed that the difference between 412,000 tons and 324,000 tons, 88,000 tons, was exported from Albania on the Soviet account. Shipments from Albania to the USSR are the summation of the movements of crude oil in Soviet tankers from Vlone to the Soviet ports on the Black Sea. <sup>36/</sup> The amount of crude oil exported to the USSR is the aggregate of data contained in source <sup>37/</sup>.

\* Appendix A, p. 22, above.

~~S-E-C-R-E-T~~

3. Bulgaria -- Tables 16, 17, and 18.\*

Bulgaria produced about 150,000 tons of crude oil in 1955 and about 247,000 tons in 1956. 38/ In these years, about 28,000 and 59,000 tons, respectively, were processed in the small refinery at Ruse. 39/ In addition, West Germany was reported to have received 10,000 tons of crude oil in 1956 from Bulgaria. 40/ Therefore, there remained 122,000 tons in 1955 and 178,000 tons in 1956 for export to other countries of the Sino-Soviet Bloc -- Czechoslovakia, East Germany, Hungary, and Poland. 41/

Hungary imported 222,000 tons of crude oil in 1955, 42/ of which 200,000 originated in Austria. 43/ Because Bulgaria is the only country of the Sino-Soviet Bloc known to have exported crude oil to Hungary, it is assumed that the difference, 22,000 tons, was shipped from Bulgaria. In 1955, Poland reported a total import of 544,900 tons of crude oil. The origin for 511,200 tons of this was indicated. 44/ It is assumed that the 34,000 tons which were unaccounted for came from Bulgaria. Because there were no known exports of crude oil by Bulgaria to East Germany in 1955, it is estimated that the balance of the 122,000 tons, 66,000 tons, was delivered to Czechoslovakia.

In 1956, Bulgaria exported 35,000 tons of crude oil to East Germany, 45/ 45,000 tons to Hungary, 46/ and 20,000 tons to Poland and also exported about 4,000 tons of gasoline to Poland. 47/ The remainder, 78,000 tons, was probably shipped to the other outlet in the Sino-Soviet Bloc, Czechoslovakia.

In 1952, 70,450 tons of petroleum products, 23.3 percent of all imported petroleum products, were consumed by the agricultural sector in Bulgaria, and, in 1955, 141,190 tons, 40.47 percent of the total petroleum imports, were used by agriculture. 48/ Therefore, it is estimated that in 1952 and 1955 total imports of petroleum products, including imports from the Free World, amounted to about 302,000 and 350,000 tons, respectively, and that the average annual increase was about 5 percent. With adjustments to exclude Free World trade, estimates of total imports of petroleum products from other countries of the Sino-Soviet Bloc were made for 1953, 1954, and 1956. The same source reported a percentage breakdown by origin of these imports in 1953-55 and of those planned in 1956. No evidence exists to indicate a change in the import pattern in 1953 compared with that in 1952.

\* Appendix A, pp. 23 and 24, above.

~~S-E-C-R-E-T~~

~~SECRET~~

Therefore, by making minor adjustments for unimportant quantities known to have originated in the Free World or in other Bloc countries, the estimates shown in Table 18 are derived.

Among the European Satellites, Rumania has consistently been the only important supplier of petroleum products to Bulgaria. Therefore, it is assumed that the product mix of total imports by Bulgaria from other countries of the Sino-Soviet Bloc was approximately the same as that of imports by Bulgaria from Rumania. The percentage by product for imports from Rumania in 1953 is applied to the total imports from all the European Satellites during 1952-56, with minor adjustments as indicated by available information. 49/

In order to estimate the product mix of imports from the USSR, civil 50/ and military consumptions 51/ in Bulgaria are added, resulting in estimates of total consumption by product during 1952-56. The imports by products from the European Satellites outlined above are subtracted from these consumption estimates. It is assumed that the indicated additional quantity of each product was supplied by the USSR. The totals of these additional requirements are almost equal to the calculated estimates of imports of total products from the USSR during 1952-55. These percentages are applied to imports from the USSR shown in Table 18 -- 1956 is broken down in the same way as 1955 -- and the results added to the estimates for imports from the European Satellites. These figures are given in Table 17.

4. Czechoslovakia -- Tables 19, 20, and 21.\*

All the indicated imports of crude oil by Czechoslovakia originated in Bulgaria. The method by which they are estimated is outlined in the methodology for Table 16.\*\* In 1956 an unknown amount of crude oil was imported from the USSR. 52/ During 1952-56, Czechoslovakia imported petroleum products from the USSR, East Germany, Hungary, and Rumania.

It is believed that imports from East Germany in 1952 53/ and 1953 54/ are the same. Information is available on contracts signed by Czechoslovakia and East Germany for shipments of iso-octane to Czechoslovakia in 1955 and 1956. 55/ The estimates of imports of petroleum products by Czechoslovakia from East Germany in 1955 and 1956 are based on the aggregates of this information.

\* Appendix A, pp. 25 and 26, above.

\*\* Appendix B, p. 39, above.

~~SECRET~~

~~S-E-C-R-E-T~~

Hungary shipped about 3,000 tons of gasoline to Czechoslovakia in 1955, 56/ and shipments probably were the same in 1956.

The major part of the imports of petroleum products by Czechoslovakia originates in Rumania and enters Czechoslovakia by way of the Danube River and by rail. Approximately 200,000 tons of petroleum products, of which more than 155,000 tons were shipped on the Danube, 57/ were exported by Rumania to Czechoslovakia in 1952. Information is available on scattered shipments of petroleum products from Rumania to Czechoslovakia by way of the Danube River in 1955. 58/ On the basis of this information, it is estimated that 245,000 tons of petroleum products were imported by Czechoslovakia from Rumania in 1955. The average annual increase during 1952-55 is calculated to be 7 percent. Estimates of total imports of petroleum products from Rumania for 1953, 1954, and 1956 are made on the basis of a rate of increase of 7 percent each year. The product mix of the known shipments by way of the Danube River was applied to the resulting totals for each of the years 1952-56.

Czechoslovak imports of petroleum products from the USSR are given in source 59/ and are assumed to have remained the same during 1952-56.

5. East Germany -- Tables 22, 23, 24, and 25.\*

East German exports of petroleum products to Bulgaria and Czechoslovakia are covered in the methodology on the imports by those countries. Information on exports of petroleum products from East Germany to the USSR, Hungary, and Poland in 1952 appears in source 60/.

In 1953, East Germany shipped about 7,000 tons of gas oil to Hungary. 61/ The estimates of shipments in 1954 are expansions of information available for 5 months. 62/ In 1955, information was received on contracts covering exports of petroleum products from East Germany to Hungary. 63/ As there is no evidence to the contrary, it is assumed that these contracts were fulfilled and that shipments in 1956 were the same.

Poland reports the imports of petroleum products from East Germany to have been 123,000 tons in 1953, 159,900 tons in 1954, 229,200 tons in 1955, 64/ and 155,400 tons in 1956. 65/ In 1953, East Germany

\* Appendix A, pp. 26, 27, and 28, above.

~~S-E-C-R-E-T~~

~~SECRET~~

reported the actual shipments of petroleum products to Poland during the first 7 months of 1953, broken down by product, amounting to about 65,600 tons. 66/ The percentage of product mix of this quantity is applied to the 123,000 tons reported by Poland to obtain a product breakdown for the whole of 1953. The product breakdown for 1954 is estimated by applying the breakdown of reported figures for 5 months, 67/ to the 160,000 tons. The estimated product breakdown for 1955 is calculated on the basis of contracts signed between East Germany and Poland 68/ and applied to 229,000 tons for 1955 and to 155,000 tons for 1956.

Estimates of exports in 1953 from East Germany to the USSR are the expansion of reported shipments which covered 7 months. 69/ It was reported that the originally planned exports of petroleum products to other Sino-Soviet Bloc countries in 1954, which amounted to 350,000 tons, had been increased to 360,000 tons. 70/ The USSR, Hungary, and Poland are the only other countries of the Bloc reported to have received petroleum products from East Germany in 1954. Hungary received 42,000 tons, Poland received 160,000 tons, and the USSR received the remainder. As there is no evidence of the export of jet fuel in 1954, which had been reported in previous years, the total shipped to the USSR is apportioned among the remaining products in the same proportion as in 1953. Estimates of exports in 1955 to the USSR are the aggregates of contracts signed by East Germany and the USSR, 71/ and those in 1956 are the planned exports. 72/

All imports of petroleum in 1952 by East Germany are taken from source 73/, those in 1953 from source 74/, and those in 1954 from source 75/. Imports of crude oil by East Germany from Bulgaria are explained under exports from Bulgaria.

Imports of crude oil and petroleum products by East Germany from Hungary are estimated in the following manner. Information was available on shipments of crude oil from Hungary for 11 months of 1955 76/ and for 8 months of 1956. 77/ This information is expanded to 12 months, 25,000 tons, in the case of 1955 and, assuming no shipments in November and December of 1956 as the result of the Hungarian uprising, to 10 months, 20,000 tons, in the case of 1956. Imports of petroleum products from Hungary are assumed to have been the same in 1955 and 1956 and were reported in the final import plan for 1955. 78/

A contract was signed by East Germany and Rumania in June 1955 for the import of 40,000 tons of gasoline. 79/ It was reported that 13,000 tons of this was shipped in July 1955 80/ and 12,000 tons in

- 42 -

~~SECRET~~

~~S E C R E T~~

August 1955. 81/ The contract probably was fulfilled, and the same quantity probably was shipped in 1956.

Estimates of imports of crude oil by East Germany from the USSR in 1955 are the sum of data contained in source 82/. East Germany reported the import of 685,000 tons of crude oil in 1956, 83/ of which 429,000 tons originated in Austria. 84/ In 1956, East Germany received 35,000 tons from Bulgaria\* and 20,000 tons from Hungary.\*\* Because the USSR is the only other country known to have shipped crude oil to East Germany, it is assumed that the remaining 201,000 tons originated in the USSR. It is reported that about 70,000 tons of jet fuel were imported from the USSR by East Germany in 1955, 85/ and because it is known that the import of jet fuel took place in 1956, it is assumed that a like amount was shipped in 1956. Source 86/ reports on the fulfillment of the plan for the import of lubricants in 1956. Under this plan, about 25,770 tons of various lubricating oils were to have been imported. Through 8 November 1956, 24,585 tons had been received. On this basis it is assumed that about 25,000 tons came in during both 1955 and 1956.

6. Hungary -- Tables 26, 27, 28, and 29.\*\*\*

The method of estimating trade in crude oil and petroleum products between Hungary and Bulgaria, Czechoslovakia, and East Germany is outlined in the methodology for those countries.

In 1952, Hungary exported 50,000 tons of petroleum products by rail to Poland 87/ and 4,000 tons to Rumania and 75,000 tons to the USSR by way of the Danube River. 88/ In the case of exports to Poland, the estimated product breakdown is obtained from information on scattered rail shipments. 89/ In addition, 6,000 tons of diesel oil were reported to have been shipped in drums to Communist China by way of Gdynia. 90/

Poland reports the receipt of the following amounts of crude oil and petroleum products from Hungary during the period 1953-55 91/:

\* See methodology on exports from Bulgaria, p. 39, above.

\*\* See methodology on imports from Hungary by East Germany, p. 42, above.

\*\*\* Appendix A, pp. 28, 29, and 30, above.

~~S E C R E T~~

~~SECRET~~

* Year	Crude Oil (Thousand Metric Tons)	Petroleum Products (Thousand Metric Tons)
1953	24.5	13.1
1954	26.3	31.9
1955	52.9	49.9

The petroleum products are broken down in the same proportion as those in 1952. In 1956 it was reported that Hungary shipped 6,488 tons of crude oil and about 23,000 tons of petroleum products to Poland.\*

Exports of petroleum products from Hungary to the USSR in 1953 are reported in source 92/, and estimates for 1954 are based on the data for 1953, adjusted in the following manner. In 1953, all of the residuals produced in the refinery at Almasfuzito were shipped in drums to the USSR by rail. Of the 550 tons of daily refinery throughput, 20 percent was manufactured as residuals, resulting in an estimated 40,000 tons exported in drums to the USSR. 93/ In addition, scattered reports of regular movements of loaded tank cars from Nyiregyhaza to Zahony between 2 January 1953 and 10 December 1954 disclosed that these cars were destined for the USSR. On 196 days of this 2-year period 2,763 tank cars crossed the border into the USSR. 94/ Expanding the fragmentary reports for each of the years 1953 and 1954 and assuming that the average weight carried in each tank car was 15 tons, 95/ estimates of 80,000 tons in 1953 and 50,000 tons in 1954 are derived.

This large movement, coupled with the lower percentage of gasoline and kerosine yield in Hungary, the increasing availability of residuals, and rising consumption 96/ indicates that some of the exports shown in the source 97/ probably were residuals rather than gasoline and kerosine. Former estimates of exports of gasoline and kerosine from Hungary to the USSR were therefore reduced by 120,000 tons in 1953 and 50,000 tons in 1954.

It has been reported that in recent years all the crude oil imported from Austria by Hungary has been refined at Szony and that the products obtained from this crude oil were shipped by way of the Danube River to Reni in the USSR. 98/ Hungary received 200,000 tons of crude

\* See methodology on imports by Poland, p. 46, below.

~~SECRET~~



~~S-E-C-R-E-T~~

oil from Austria in 1955 99/ and 248,000 tons in 1956. 100/ It is believed that all this crude oil originated in the Matzen field in Austria. Crude oil from this field yields 5 percent gasoline, 10 percent kerosine, 25 percent distillate fuel oil, 40 percent residual fuel oil and others, and 10 percent lubricants. 101/ This pattern of refinery yield is applied to the crude oil imported from Austria in 1955 and 1956 to obtain estimates of exports of petroleum products to the USSR.

Imports of crude oil and petroleum products from Bulgaria and East Germany during 1952-56 are explained under the exports from those countries.

Imports of petroleum products by Hungary from Rumania in 1952 are taken from source 102/ and those in 1953 from source 103/. Lacking evidence to the contrary, it is assumed that the imports in 1954 were the same as those in 1953. In August 1956, information was received on the trade of Hungary in 1955 in crude oil and petroleum products and on plans for 1956. 104/ This information is reported by two groups of origin -- Communist countries and all countries outside the Iron Curtain. In 1955, of the petroleum products imported from the Communist countries, 3,000 tons of gasoline originated in Germany.\* The aviation gasoline, amounting to 2,000 tons in 1955 and 6,000 tons planned in 1956, is assumed to have originated in the USSR as explained in the following paragraph. The remaining imports in 1955 are assumed to have come from Rumania. The origins of the imports of petroleum products are believed to have been the same in 1956. In addition, supplemental agreements were concluded for the import of 70,000 tons of gasoline, diesel oil, and fuel oil from Rumania. 105/ The sum of the planned imports and the additional contracts is used as the estimate of imports into Hungary from Rumania in 1956.

Hungary reported having received 284,000 tons of crude oil from the USSR in 1956. 106/ It is known, however, that 248,000 tons of this were shipped from Austria on the Soviet reparations accounts, 107/ with the remaining 36,000 tons coming from the USSR itself. The petroleum products imported from the USSR in 1952 are the recorded shipments on the Danube River. 108/ The USSR shipped 2,167 tons of aviation gasoline to Hungary in 1955. 109/ In the absence of evidence to the contrary, imports in 1954 are assumed to be the same as

\* See methodology on exports from East Germany, p. 41, above.

~~S-E-C-R-E-T~~

those in 1953. Planned imports of aviation gasoline in 1956 were placed at 6,000 tons, also assumed to be from the USSR.

7. Poland -- Tables 30 and 31.\*

Trade in crude oil and petroleum products between Poland and Albania, Bulgaria, East Germany, and Hungary has been outlined under those countries with the exception of imports from Hungary in 1956, which will be described below.

Imports of petroleum from Rumania and the USSR in 1952 were taken from source 110/. Poland published information on imports of crude oil and total petroleum products for the period 1953-55 111/ and for 1956. 112/ The crude oil and total petroleum products recorded as coming from Rumania were used as the total imports from Rumania in 1953, 1954, and 1955. The product mix used in 1952 and 1953 is the same as that in source 113/. Imports of petroleum products were apportioned according to tanker shipments through the Bosphorus to Poland in 1954 114/ and 1955 115/.

In 1953, Poland imported 233,000 tons of crude oil and 145,000 tons of petroleum products from the Free World 116/; in 1954, 225,000 tons of crude oil and 160,000 tons of petroleum products 117/; in 1955, 273,000 tons of crude oil and 235,000 tons of petroleum products. 118/ When these figures have been added to the other known imports and subtracted from the totals for this period mentioned in the preceding paragraph, it can be assumed that the remaining imports came from the USSR. Estimates of imports from the USSR are as follows: 42,000 tons of petroleum products in 1953, 69,000 tons of crude oil and 164,000 tons of petroleum products in 1954, and 61,000 tons of crude oil and 91,000 tons of petroleum products in 1955. The estimated imports of petroleum products for 1953-55 are apportioned according to the product mix reported in the shipments through the Bosphorus to Poland from the USSR. 119/

In 1956, Poland reported the receipt of 19,611 tons of crude oil from Bulgaria; 6,488 tons from Hungary; and 510,800 tons from the USSR, 120/ of which 340,864 came by rail from Austria. 121/

Imports of petroleum products by Poland in 1956 amounted to 951,900 tons. 122/ Approximately 100,000 tons of gasoline and gas oil were shipped by rail from Austria, 123/ 5,000 tons of gasoline from Yugoslavia, and 4,000 tons of residual fuel oil from West Germany.

\* Appendix A, p. 31, above.

~~S E C R E T~~

In addition, 155,400 tons of petroleum products from East Germany, 301,700 tons from Rumania, 23,100 tons from Hungary, and 4,000 tons from Bulgaria were received in 1956 by Poland. 124/ Poland imported 201,000 tons of gasoline, 13,000 tons of kerosine, and 62,000 tons of diesel fuel from Rumania in 1956. 125/ It is assumed that the remaining 26,000 tons of imports from Rumania were in the form of residual fuel oil. If the above imports are subtracted from the reported total of about 952,000 tons, it can be estimated that approximately 359,000 tons of petroleum products were imported in 1956 by Poland from the USSR. Of this amount, 150,000 tons were reported to be gasoline; 30,000 tons, kerosine; 100,000 tons, fuel oil; and the remaining 79,000 tons, gas oil and lubricants. 126/

8. Rumania -- Tables 32, 33, 34, and 35.\*

The estimates shown for exports and imports of crude oil and petroleum products by Rumania are aggregates of the trade of the other countries of the Sino-Soviet Bloc with Rumania. As a tentative check, estimates of the production of the Rumanian refineries were added to imports. From this total was subtracted the estimated total consumption and exports to the Free World. The remainders were assumed to be the exports of petroleum products to other countries of the Sino-Soviet Bloc. Comparison of the totals for each year developed by both methods showed that the differences were negligible. When comparisons were made on a product-by-product basis, the differences between the 2 methods were never more than 7 percent of the total exports of petroleum products from Rumania for the corresponding years. This occurred only four times -- gas oil and residual fuel oil in 1954 and kerosine and gas oil in 1956. The other variations were 5 percent or less.

9. Communist China and North Vietnam -- Tables 36, 37, and 38.\*\*

Imports of petroleum from Hungary and the USSR by Communist China are handled in the methodology on exports from those countries.\*\*\* North Vietnam received no petroleum from Hungary and the USSR.

Imports of petroleum products into Communist China from Rumania during 1952-56 are the tanker shipments from the Black Sea. They are

\* Appendix A, pp. 32 and 33, above.

\*\* Appendix A, pp. 34 and 35, above.

\*\*\* See methodologies on exports from the USSR and Hungary, pp. 37 and 43, respectively, above.

~~S E C R E T~~

~~SECRET~~

the aggregates of data in the documents in source 127/ for 1952, source 128/ for 1953, source 129/ for 1954, source 130/ for 1955, and source 131/ for 1956. Imports into North Vietnam in 1955 are the aggregates of data in source 132/, and imports in 1956 are the aggregates of data in source 133/.

~~SECRET~~