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RECENT DEVELOPMENTS IN SOVIET TRADE
IN MOTOR VEHICLES AND TRACTORS
1955-58

**CIA HISTORICAL REVIEW PROGRAM
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CENTRAL INTELLIGENCE AGENCY

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FOREWORD

This report is designed to provide an assessment of the significance of Soviet foreign trade in motor vehicles and tractors. Presented in tabular form in the report are the relative amounts of Soviet trade in these commodities with the Sino-Soviet Bloc, Western Europe, and the underdeveloped countries of the Free World, as well as detailed analyses of the types of vehicles traded, the relationship of the vehicles traded to the needs of the Soviet economy, and the proportion of military goods in the export of motor vehicles from the USSR to the underdeveloped countries. The report includes an examination of changes in the geographical distribution of Soviet trade in tractors and motor vehicles in 1955-57, with an analysis of probable courses of developments in 1959-65. Data in this report are a first approximation, subject to further refinement.

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RECENT DEVELOPMENTS IN SOVIET TRADE
IN MOTOR VEHICLES AND TRACTORS*
1955-58**

Summary and Conclusions

Soviet trade in motor vehicles*** and tractors did not increase substantially during 1955-57 in spite of the recent Soviet program of trade and aid to underdeveloped countries. (For Soviet trade in motor vehicles, see the accompanying chart, Figure 1.****) Although the percentage of motor vehicles exported to the Free World increased from 35 percent of Soviet exports of motor vehicles in 1955 to 66 percent in 1957, the increase was insufficient to offset rapidly decreasing exports to the countries of the Sino-Soviet Bloc. Increased capabilities for production of motor vehicles in Rumania and Communist China and trade difficulties between Poland and the USSR made these three countries less dependent on Soviet shipments of vehicles. Production of automobiles in Czechoslovakia, East Germany, and Poland more than doubled from 1955 to 1957, enabling these countries to replace the USSR in supplying automobiles to the Bloc.

Within the Sino-Soviet Bloc, only Czechoslovakia substantially increased its imports of Soviet motor vehicles, and in the underdeveloped areas of the Free World the major importers of Soviet motor vehicles were Egypt, Afghanistan, Indonesia, and Syria, where imports principally were military trucks and jeeps. In 1957, military vehicles accounted for more than one-half of Soviet exports of motor vehicles to underdeveloped countries of the Free World. In Western Europe, Finland and Norway were the only major importers of Soviet automobiles and trucks, and even the Finnish market showed signs of collapse in early 1958.

The decrease of exports of motor vehicles since 1955 reflects Soviet planning for greater domestic allocation of vehicles and indicates that exports of this commodity may be of marginal interest to the planners. In 1957, although the USSR exported only 3.7 percent of its production of trucks and 0.5 percent of that of buses, 22.1 percent of the 113,600 passenger automobiles produced were exported -- an indication of the indifference of Soviet leaders to domestic distribution of automobiles.

* The estimates and conclusions in this report represent the best judgment of this Office as of 1 January 1959.

** Although data for 1958 have been included in this report, such data are based on incomplete information available as of the date of publication of the report.

*** The term motor vehicle as used in this report comprises trucks, automobiles, buses, and special vehicles based on truck or bus chassis and does not include motorcycles, trailers, spare parts, and sets of component parts shipped for assembly elsewhere. The term does not include garage and maintenance equipment, except mobile workshops.

**** Following p. 2.

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In 1955, exports of tractors decreased more sharply than exports of motor vehicles although it is probable that this trend was reversed in 1958 because of increased exports to Communist China and Mongolia. The decrease in exports of tractors to countries of the Sino-Soviet Bloc in 1955-57 was not offset by a comparable increase in exports to countries of the Free World. In 1957, 65 percent of the Soviet exports of tractors went to countries of the Bloc. Except for exports to Yugoslavia, the USSR so far has failed to develop in the Free World any substantial market for its tractors.

Soviet imports of motor vehicles were small in number but increasing, whereas imports of tractors were insignificant. All of the tractors and some of the motor vehicles imported were models from the Free World, purchased for study and experimentation by Soviet engineers. In addition, the USSR imported principally from Czechoslovakia small quantities of special types of motor vehicles, such as station wagons, long-distance buses, refrigerator trucks, heavy dump trucks, and mobile workshops to supplement inadequacies in domestic production.

I. Imports.

Soviet imports of motor vehicles and tractors in 1955-58 were insignificant in relation to total imports of the USSR as well as in relation to Soviet production of motor vehicles and tractors. In 1956, imports of these commodities amounted to less than 0.2 percent of Soviet production of motor vehicles and tractors and accounted for only 0.3 percent of the value of all Soviet imports. (For Soviet imports of motor vehicles and tractors, by country of origin, see the accompanying chart, Figure 2. *) The motor vehicle and tractor industries of the USSR are oriented entirely toward domestic self-sufficiency, and the USSR depends only to a minor degree on outside sources for motor vehicles and tractors. The motor vehicles and tractors imported by the USSR fall, generally speaking, into two categories: (1) prototypes, purchased for study and experimentation, and (2) small quantities of special motor vehicles imported to supplement domestic production. Only in these two categories did Soviet production fail to meet domestic requirements.

A. Motor Vehicles.

1. From Countries of the Sino-Soviet Bloc.

The increase of Soviet imports of motor vehicles in 1955-58, as shown in Tables 1 and 2, ** largely was accounted for by the increase of Soviet trade with Czechoslovakia, as shown in Table 3. *** Czechoslovak motor vehicles imported by the USSR are station wagons

* Following p. 2.

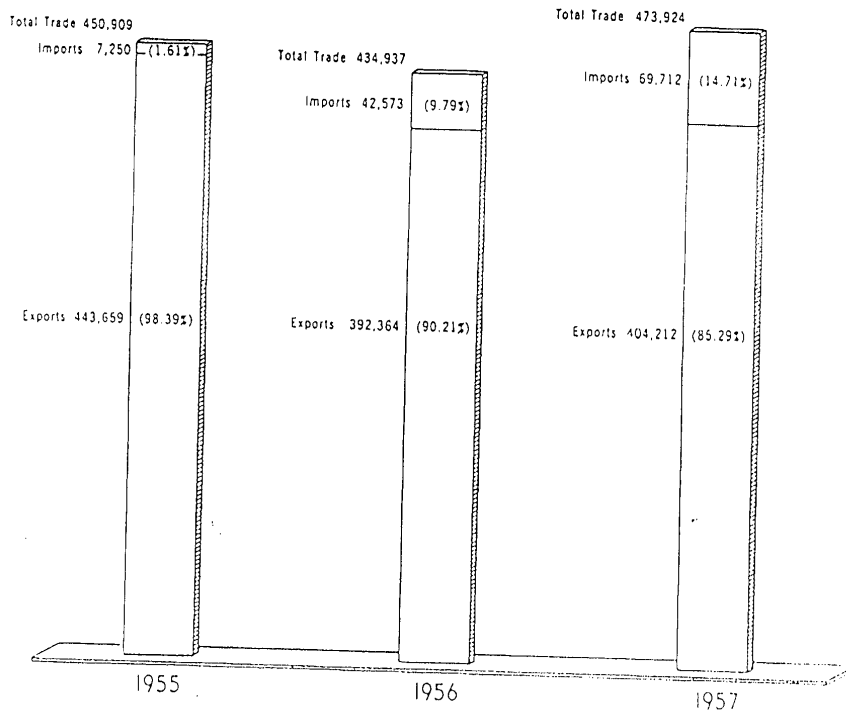
** Appendix B, pp. 15 and 16, respectively, below.

*** Appendix B, p. 17, below.

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USSR: VALUE OF TRADE IN MOTOR VEHICLES* AND TRACTORS
1955-57

In rubles**



* Including trucks, automobiles, and buses.
** The ruble-dollar ratio = 4:1

Figure 1

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USSR: IMPORTS OF MOTOR VEHICLES* AND TRACTORS
BY COUNTRY OF ORIGIN
1955-57

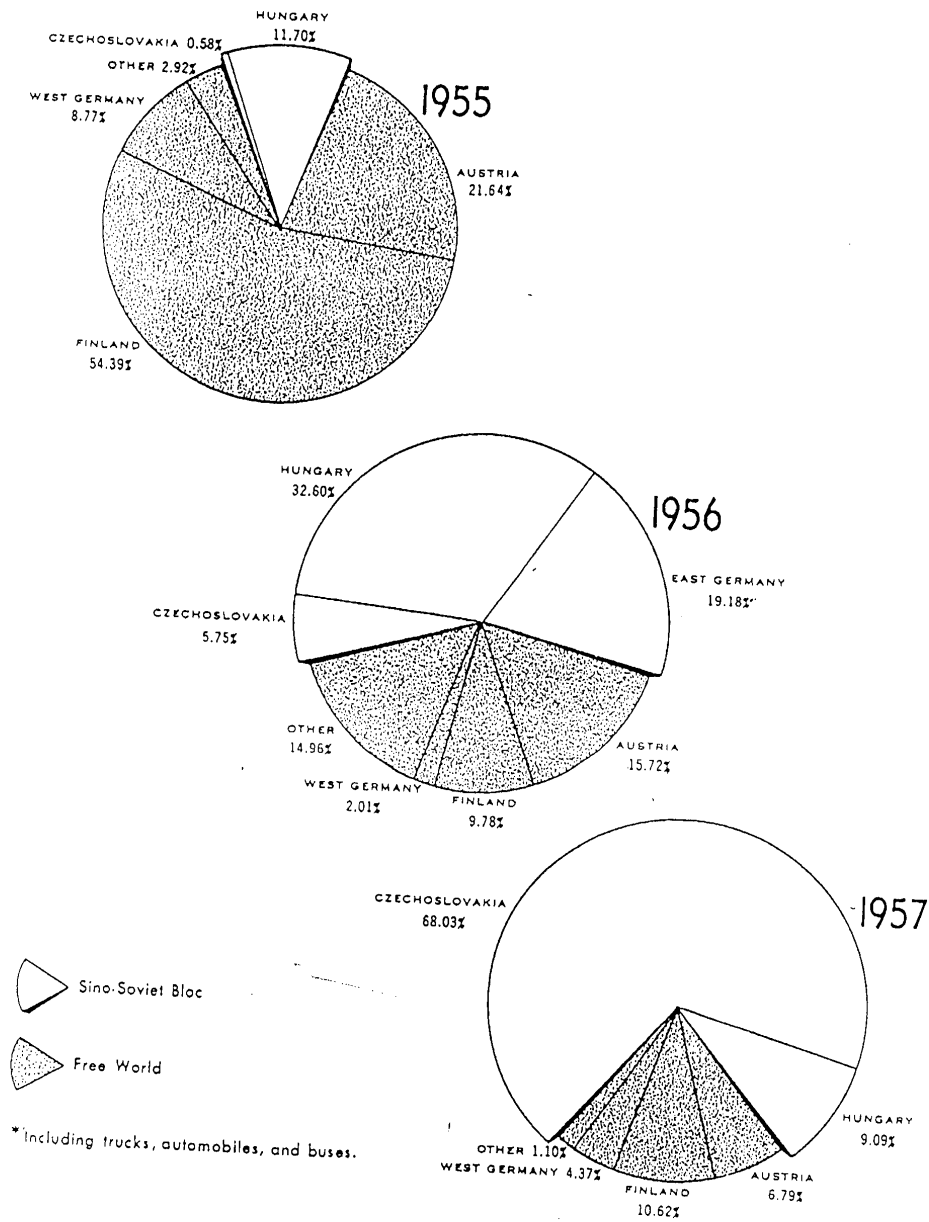


Figure 2

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and heavy dump trucks, both of which serve to supplement insufficient Soviet production of these types of vehicles. (For Soviet production of motor vehicles, by type of vehicle, see Table 4. *) The estimated importation of 578 Czechoslovak Skoda station wagons in 1957 and 1,500 in 1958 helped to fill one of the major gaps in the Soviet supply of motor vehicles to domestic consumers. 1/** Since World War II the USSR has produced only 16,800 station wagons, and the current annual output of the only station wagon in production, the Moskvich-423, is less than 1,000. *** The only other types of utility vehicles produced in the USSR are the UAZ-450 which is made in pickup and closed van models and the GAZ-69, a jeep, made as an 8-passenger vehicle or as a 1/2-ton cargo carrier. Production of the UAZ-450 began in late 1957 or early 1958, and only a few thousand were produced by the end of 1958. It is estimated that, in 1957, 25,000 GAZ-69 motor vehicles were produced, of which about 5,000 were exported. The importation of Skoda station wagons will alleviate to some extent the shortage of small utility vehicles in the USSR.

Similarly, the importation of Czechoslovak heavy dump trucks, Tatra 111 S-2, and Skoda 706 RS, supplements the modest Soviet production of these types of trucks. In 1956-57, 1,062 Czechoslovak trucks with capacities of 7 and 10 tons were purchased, and in 1958 a new contract called for delivery of 2,500 heavy dump trucks. 3/ Apparently the USSR considered its own production of heavy dump trucks to be inadequate, because the announcement of the annual plan for 1958 devoted special attention to the problem of production of dump trucks. 4/ Since the end of World War II the USSR has produced approximately 1,000 25-ton dump trucks, not more than 5,000 12-ton dump trucks, and 37,000 5-1/2-ton dump trucks. Continuing complaints in the Soviet press about the quality of heavy diesel trucks indicate that the USSR does not possess heavy dump trucks in sufficient quantity or of adequate quality. Tatra and Skoda trucks imported from Czechoslovakia will augment the Soviet park of heavy diesel dump trucks.

Other imports from the European Satellites are on a smaller scale, but, like the imports from Czechoslovakia, they supplement weak spots in Soviet production of motor vehicles. One such weak spot has been production of long-distance, or interurban, buses. Production of buses in general has been insufficient in the USSR, as revealed for the original Sixth Five Year Plan (1956-60), which called for production of buses to increase by 1960 to 88 percent more than production in 1955, compared with a planned increase of 32 percent for production of trucks. 5/ Moreover, most Soviet production of buses is composed of city buses. In 1957, of 10,300 buses produced in the USSR, only 300 were of the ZIL-127 model, the only Soviet long-distance bus.

* Appendix B, p. 17, below.

*** Throughout this report, all figures on Soviet production of particular models of vehicles are based on source 2/.

The need for more long-distance buses has been met by the importation of Hungarian Ikarus 55 and Ikarus 60 buses. Hungary is the only European Satellite, with the possible exception of Czechoslovakia, which produces large buses for export. The continued inability of the Hungarians to supply tires and spare parts for these buses, however, may bring about a cancellation of this trade after 1958. 6/ Hungary also is supplying the USSR with DR-50 dump trucks, small-load, short-haul motor vehicles for construction work, and mobile X-ray units on bus chassis. 7/ A third European Satellite, East Germany, has been supplying mobile repair shops for automobiles. In addition, the East Germans are mounting special equipment on Soviet or East German trucks for the benefit of Soviet forces in East Germany, but data are insufficient for compiling a reasonable estimate. 8/

2. From Countries of the Free World.

The imports of motor vehicles from countries of the Free World have risen only slightly from the small figure of 130 units in 1955, in contrast to the increasing Soviet imports from the European Satellites, as shown in Table 3.* As in the trade with the Satellites, most Soviet imports from countries of the Free World are special types of vehicles, which supplement inadequate domestic production. Austria, as part of its reparation payments, shipped refrigerator trucks during 1955-57 and a few 24-ton tractor-trailers for transporting grain. Although the USSR has a continuing need for equipment for transporting grain, imports of this Austrian model will not increase in the next few years unless better roads are constructed in the grain-producing areas of the USSR. The Austrian trucks were found to be too heavy for the primitive Soviet rural roads. 9/

A few heavy trucks, oil survey vans, and German-made Ford automobiles have been imported from West Germany, 10/ and a few automobiles and trucks have been purchased from the US and Italy, presumably for study by automotive engineers. 11/

Lastly, Finland has been exporting to the USSR a type of timber-hauling tractor-truck which uses a Soviet-made GAZ-51 truck engine. Once again, this trade supplements the small Soviet production of timber-hauling motor vehicles. Finland supplied approximately 100 tractor-trucks in 1955 and 1956 and 2-1/2 times that number in 1957 and 1958. 12/

B. Tractors.

Soviet imports of tractors in 1955-57 differed in several respects from imports of motor vehicles. The volume of imports of tractors, as shown in Tables 5 and 6,** was even smaller than that of vehicles, and there is no evident intention of using imports to supplement domestic production. The imports of tractors from 1955 through 1958 came from industrialized countries of the Free World, principally from the US, the UK, and West Germany. A few Austrian tractors were imported as

* Appendix B, p. 17, below.

** Appendix B, p. 18, below.

reparations. The models imported served as prototypes for study by Soviet engineers and designers. Most of these tractors were small- or medium-size models, mainly garden or orchard types, because heavy crawler tractors were on the embargo list of the Coordinating Committee on Export Control (COCOM).

II. Exports.

Although exports of motor vehicles and tractors loomed larger in 1955-57 in the Soviet trade picture than did imports of these commodities, as shown in Tables 7 and 8,* vehicles and tractors did not constitute a major item of export. Soviet exports of motor vehicles and tractors, in terms of value, as shown in Tables 9 and 10,** accounted for only 3.2 percent of all Soviet exports in 1955 and 2.5 percent in 1956. Furthermore, although Soviet exports in general increased in total value since 1955, exports of motor vehicles and tractors have remained near the level of 1955. (For Soviet exports of motor vehicles and tractors, by area of destination, see the accompanying chart, Figure 3.***)

Soviet exports of motor vehicles in 1957 were 6.8 percent greater than in 1955, whereas Soviet domestic production of motor vehicles in 1957 was 11.3 percent greater than in 1955. The proportion of production of motor vehicles which was assigned for export has decreased, therefore, from 8.2 percent of production in 1955 to 7.9 percent of production in 1957. A closer study of the composition of exports of motor vehicles, as shown in Table 11,**** reveals that although only a small percentage of production of Soviet trucks (3.7 percent in 1957) and an insignificant proportion of buses (0.5 percent in 1957) were exported, a surprisingly large percentage of automobiles (19.0 percent of production in 1956 and 22.1 percent of production in 1957) were exported. These figures are surprising only because Soviet production of automobiles was so small (98,000 in 1956, including 23,200 jeeps, and 113,600 in 1957, including 25,000 jeeps). This relatively high percentage of automobiles made available for export indicates the low priority which Soviet leaders accorded to domestic distribution of automobiles.

The USSR produces only 5 models of automobiles: the ZIS, a limousine, which is produced for the use of high officials of the Communist Party and of the government and is not sold commercially; the ZIM, a large 6-passenger limousine; the Pobeda, a medium-sized 5-passenger sedan replaced by the Volga early in 1958; the Moskvich, a small 4-passenger automobile about the size of the Volkswagen; and the GAZ-69, a jeep which is produced in both 5- and 8-passenger models. All of these automobiles are available for export, but because the market abroad for the ZIS and the ZIM is very small, most of the automobiles exported are Moskvich and Pobeda (now Volga) automobiles and GAZ-69 jeeps, as shown in Table 12.†

* Appendix B, p. 19, below.

** Appendix B, p. 20, below.

*** Following p. 6.

**** Appendix B, p. 21, below.

† Appendix B, p. 22, below.

As for tractors, although exports in 1957, measured in units, were slightly higher than in 1956, exports measured in percentage of Soviet production show a decrease from 4.9 percent of production in 1955, as shown in Table 11,* to 3.3 percent of production in 1957.

A. Motor Vehicles.

1. To Countries of the Sino-Soviet Bloc.

A study of the geographical distribution of Soviet exports of motor vehicles in 1955-57 reveals some apparent trends in the direction of this trade. Exports of motor vehicles to countries of the Sino-Soviet Bloc decreased by 26.3 percent from 1955 to 1956 and by 23.5 percent from 1956 to 1957. The countries of the Bloc imported 65 percent (23,778 units) of Soviet exports of motor vehicles in 1955, as shown in Table 13,** and only 34 percent (13,422 units) in 1957.

This considerable decrease in exports to the countries of the Sino-Soviet Bloc is accounted for partly by the growth and development of truck industries in Rumania and Communist China and by changed economic conditions in Poland. The opening of the first Chinese Communist truck plant at Ch'ang-ch'un in the summer of 1956 brought a decrease in Chinese import requirements. Similarly, the mastering of mass production in the Rumanian truck factory at Orasul Stalin, where trucks were first produced in 1954, lessened the Rumanian need for Soviet vehicles.

Polish imports of Soviet trucks have decreased since 1955, probably because of purchases from other countries caused by a worsening balance of trade with the USSR. Polish production of trucks has decreased gradually since 1954 although Poland has continued to import from the USSR sets of component parts for assembly of trucks and automobiles. Trucks of the GAZ-51 type are assembled at Lublin, and Pobeda automobiles are assembled at Zeran. In the Soviet statistical review of foreign trade, Vneshnyaya torgovlya Soyuzo SSR za 1956 god: statisticheskiy obzor (Foreign Trade of the USSR in 1956: Statistical Review), these sets of component parts are placed in a category separate from exports of complete vehicles, and from listings of spare parts. Figures from the statistical review indicate an increase in the number of such sets of components exported to Poland from 1955 to 1956 of from 2,980 to 3,110 sets for trucks and of from 4,892 to 7,908 sets for automobiles. The value of the exports of sets of components for automobiles, however, decreased from 1955 to 1956. Therefore, Poland was producing more types of component parts and importing correspondingly fewer parts from the USSR, although Poland still was dependent on the USSR in 1956 for certain elements of each vehicle produced at Zeran and Lublin.

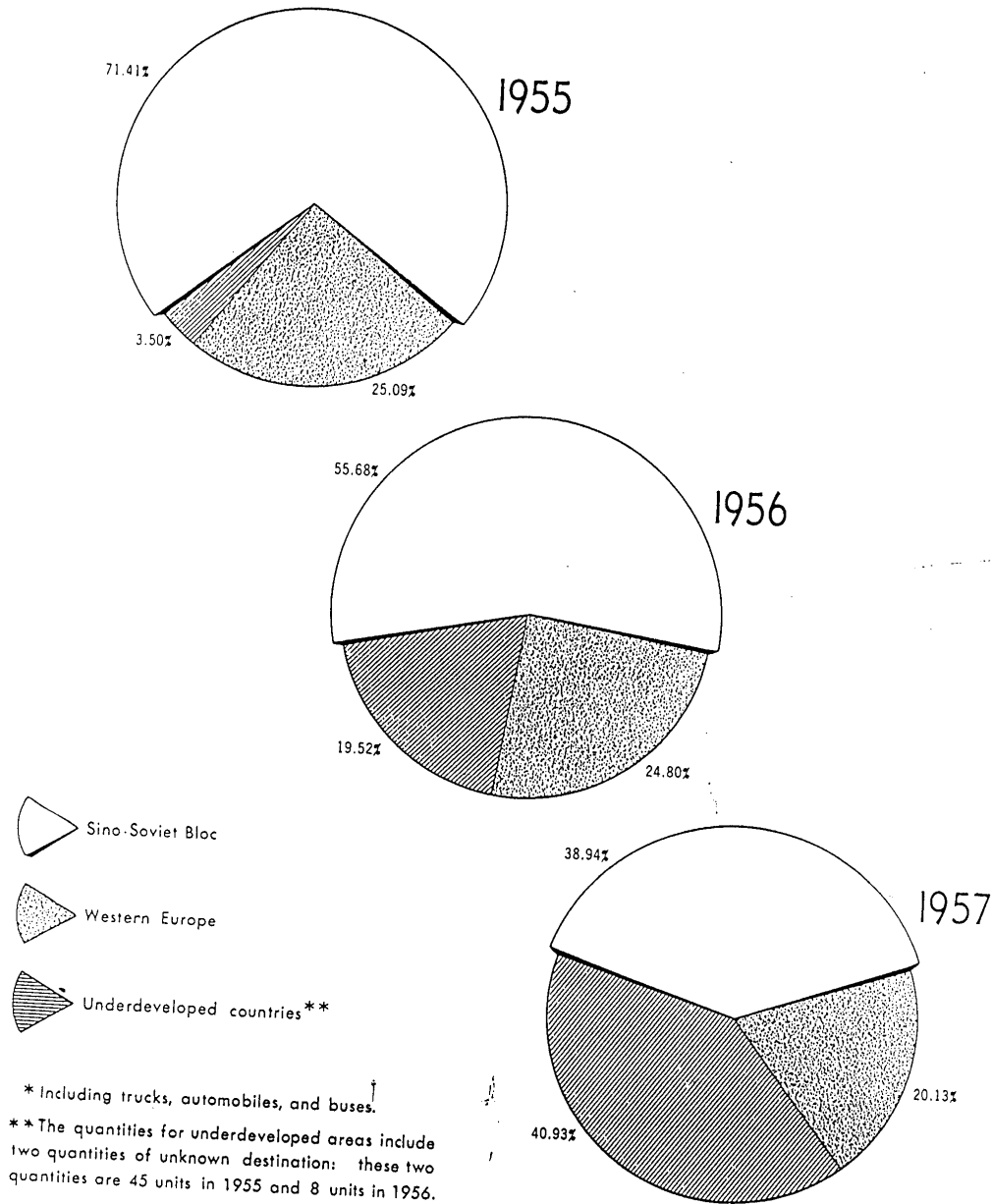
In addition to the increased production of trucks in Rumania and Communist China and a decrease in Polish dependence on the USSR for trucks, production of automobiles in East Germany,

* Appendix B, p. 21, below.

** Appendix B, p. 23, below.

USSR: EXPORTS OF MOTOR VEHICLES,* TRACTORS,
AND MILITARY VEHICLES, BY AREA OF DESTINATION

1955-57



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Figure 3

Czechoslovakia, and Poland more than doubled, from 38,800 units in 1955 to 80,800 units in 1957. Furthermore, plans call for annual production by these 3 European Satellites of 144,000 automobiles in 1960. Because it was planned for the motor vehicle industries of these countries to produce goods for both domestic needs and export, the Satellites by 1957 were replacing the USSR as suppliers of automobiles to the other countries of the Sino-Soviet Bloc. The Council of Mutual Economic Assistance (CEMA) has sanctioned continued production of virtually all types of vehicles which were in production in 1956 or which were planned for 1956-60.

Soviet exports of motor vehicles to Poland, Rumania, and Communist China decreased in 1955-57, as shown in Table 14,* whereas Czechoslovakia became the only country in the Sino-Soviet Bloc to increase greatly its imports of motor vehicles. The sudden increase in exports of automobiles to Czechoslovakia in 1956 is difficult to explain.

A considerable portion of these vehicles were GAZ-69 jeeps and the remainder Pobeda automobiles, 13/ but the relative numbers cannot be determined accurately. Czechoslovak purchases of automobiles in 1956 accounted for well over one-half of the Soviet exports of automobiles to the Bloc. The information available on Soviet exports of motor vehicles in 1958 still is too fragmentary to permit compilation of an estimate for the Bloc.

The Chinese Communists have placed an order, presumably for delivery in 1958, for 8,242 Soviet trucks and 541 automobiles. 14/ If the USSR is able to fill this order, the trend of decreasing exports to countries of the Bloc will be reversed in 1958.

2. To Countries of the Free World.

a. Western Europe.

Since 1955, Finland consistently has been the best customer of the Soviet motor vehicle industry, importing 21 percent of Soviet exports of motor vehicles to the whole world from 1955 through 1957. Finnish purchases, however, decreased from 6,882 units in 1957 to less than 300 in the first quarter of 1958. 15/ Buyer resistance by Finland was responsible for the collapse of this market, and Finland was attempting to reexport to Greece and East Germany some of the stock of unsold Soviet motor vehicles.

Norway is the only other country of Western Europe which has imported any considerable number of Soviet motor vehicles, although a few Soviet automobiles are exported annually to Sweden, Denmark, Austria, Holland, and Belgium. The market for Soviet automobiles in Norway and Finland is maintained on an artificial basis. Norwegian fish and oils and Finnish forestry products are exchanged for Soviet manufactured products according to annual or biannual trade agreements. The bartered Soviet motor vehicles, mostly automobiles, are protected in Finland and Norway by licensing systems which restrict the importation and sale of automobiles from the Free World. 16/ In spite of serious mechanical defects (inferior piston rings, leaky

* Appendix B, p. 24, below.

carburetors, engine vibration, and windshields of poor quality), Soviet automobiles are purchased by Finland and Norway because models from the Free World are not easily obtainable. 17/ In 1955 the Western European market imported 30.5 percent (11,121 units) of Soviet exports of motor vehicles, in 1956 28.6 percent (9,927 units), and in 1957 22.8 percent (8,860 units), as shown in Table 15.*

b. Underdeveloped Countries.

Although the number of Soviet motor vehicles exported to Western Europe decreased slightly and exports to the Sino-Soviet Bloc decreased greatly, the sale of Soviet motor vehicles to underdeveloped countries increased sharply from 1955 to 1957. In 1957, more than 16,600 Soviet motor vehicles were exported to the underdeveloped areas, 10 times more than in 1955. Part of this increased trade is accounted for by the resumption of Soviet-Yugoslav trade relations in 1956, which resulted in exports to Yugoslavia in 1956 of 754 GAZ-51 trucks and 370 automobiles and a further increase of trade in 1957 and early 1958.

In addition, a large and increasing proportion of the motor vehicles exported to underdeveloped areas consists of military vehicles, which are not reported in Soviet trade figures. Indonesia, Syria, Egypt, Afghanistan, and Yemen were in 1955-57 the importers of these military vehicles, as shown in Table 16,** The military vehicles exported to Indonesia were mostly GAZ-69 jeeps for the Indonesian army. Exports of these jeeps continued into the first quarter of 1958, by which time a total of 4,000 units had been delivered. 18/ The four Middle Eastern countries -- Egypt, Syria, Yemen, and Afghanistan -- purchased military motor vehicles from both Czechoslovakia and the USSR, and deliveries from both of these countries continued into 1958. Most of the military trucks and jeeps sent to the Middle East were standard Soviet models which are produced for both commercial and military use, such as the ZIL-150, ZIL-151, GAZ-51, GAZ-63, and YaAZ-210 trucks and the GAZ-69 and GAZ-69A jeeps.

Aside from these exports of military motor vehicles, Soviet attempts to sell trucks and automobiles in the underdeveloped areas were not outstandingly successful. From 1955 to 1957 the Afghan government purchased 1,070 Soviet civilian motor vehicles, mostly trucks. These trucks performed so poorly that the Afghans became thoroughly disgusted with Soviet motor vehicles and are unlikely to purchase more after the present contracts are fulfilled. 19/

In only a few countries was there a substantial increase of Soviet sales of motor vehicles. Purchases by Iran of Soviet motor vehicles increased from 291 units in 1955 to 2,074 units in 1957. Burma, Greece, and Egypt also bought considerably more vehicles in 1957 than in 1955.

* Appendix B, p. 28, below.

Although the volume of sales of nonmilitary Soviet motor vehicles in underdeveloped areas generally has failed to reach significant levels, the geographical distribution of Soviet exports has expanded considerably since 1955, as shown in Table 14.* Even though the USSR had little success in introducing its automobiles and trucks to Latin America, it has opened new markets in Africa and Asia. By 1958, Soviet motor vehicles in small quantities were sold in a number of new markets including Libya, Kuwait, Cambodia, Ceylon, Sudan, and Turkey.

B. Tractors.

1. To Countries of the Sino-Soviet Bloc.

The proportion of Soviet exports of tractors shipped to countries of the Sino-Soviet Bloc decreased from 99.5 percent of Soviet exports of tractors in 1955 (7,967 units), as shown in Table 18,** to 64.8 percent in 1957 (4,355 units). Exports to Communist China, Rumania, and North Korea decreased most sharply, although the reasons for the decrease differ in each instance. In the case of China, the low figure for 1957 reflects the decision of the Chinese Communist government in 1957 to retard temporarily the mechanization of agriculture and to reduce imports of tractors. This policy was reversed in 1958 with the "leap forward" movement, which was accompanied by the introduction of production of tractors in China and renewed emphasis on imports of tractors. 21/ As for Rumania, the rise in domestic production of tractors in 1956 and 1957 probably explains the decrease of imports from the USSR. Tractors exported to North Korea in 1955 were part of a rehabilitation program, which probably was concluded in 1956.

Soviet exports of tractors to Bulgaria and Mongolia increased during 1955-57. Bulgaria, which has no domestic tractor industry, is dependent for its supply of tractors on imports from the USSR and Czechoslovakia. From 1955 through 1957, Bulgaria constituted the largest single market for Soviet exports of tractors. The figures on this trade, as reported in Statisticheski godishnik na Narodna Republika Bulgariya (sukrateno izdaniye), 1956 (Statistical Yearbook of the People's Republic of Bulgaria, Abridged Edition, 1956) differ substantially from figures in the Soviet statistical review of foreign trade. According to the Bulgarian publication, tractors imported from the USSR amounted to 1,519 units in 1955 and 3,085 in 1956, whereas the Soviet publication reports 2,075 units in 1955 and 2,242 in 1956. Both publications, however, may be correct, for a considerable part of this trade takes place in December and January, so that some shipments which left the USSR in December of 1955 and were registered as exports in 1955 arrived in Bulgaria in January 1956 and were counted as part of the imports in 1956 in tables of Bulgarian trade. 22/

It is likely that another factor in the decrease of Soviet exports of tractors to the Sino-Soviet Bloc in 1956 was the increase of

* Appendix B, p. 24, below.

** Appendix B, p. 30, below.

Czechoslovak production of tractors from 12,570 units in 1955 to 18,004 in 1956. Sixty percent of Czechoslovak production of tractors is exported, much of it to the European and Asiatic Satellites. 23/ To some extent Czechoslovakia has replaced the USSR as supplier to the Satellites.

2. To Countries of the Free World.

Exports of Soviet tractors to the Free World increased from an insignificant 0.5 percent of Soviet exports of tractors in 1955, as shown in Table 17,* to a substantial 35.2 percent in 1957. In terms of units, however, the USSR exported only 2,369 tractors to the Free World in 1957. Whereas sales of tractors to Western Europe remained at a very low level, as shown in Tables 17 and 18,** the increase in Soviet exports of tractors was accounted for by a rise in sales to a few underdeveloped countries of the Free World. Yugoslavia, India, Egypt, Syria, and Greece are the major customers, but only in Yugoslavia has the USSR established a significant market for its tractors. The probable increase in exports for 1958 to India, Egypt, and Turkey will not alter the picture materially. The USSR has accomplished far less in selling tractors to underdeveloped countries than it has in the sale of motor vehicles.

III. Future.

It is unlikely that there will be from 1958 through 1965 any substantial increase in Soviet exports of motor vehicles and tractors, in spite of the probable increase in Soviet trade with underdeveloped countries and the probable increase in Soviet production of motor vehicles.

During 1959-65 an increase of exports of motor vehicles and tractors to the Free World will be offset largely by a decrease of exports to the European Satellites. Such a pattern of trade clearly has been discernible in the case of motor vehicles since 1955 and probably will continue through 1965. The decreasing flow of motor vehicles and tractors to the Satellites will result in part from increased capabilities of the Czechoslovak and the Chinese Communist -- and, to a lesser extent, the East German, the Polish, and the Rumanian -- motor vehicle and tractor industries. With the emergence of large-scale motor vehicle and tractor industries in Communist China in 1956-60, Soviet exports of these commodities to the Asiatic Satellites will decrease further. Similarly, it is estimated that Czechoslovak tractors, trucks, and automobiles will be exported in greater numbers to the European Satellites. Plans of CEMA involving the participation of the USSR are not known.

Soviet exports of motor vehicles to Scandinavia seem likely to decrease considerably during 1959-65, whereas the present low rate of increase of Soviet exports of motor vehicles and tractors to the underdeveloped countries will compensate for the decrease of Soviet exports

* Appendix B, p. 29, below.

** Appendix B, pp. 29 and 30, below.

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to Scandinavia and to the Sino-Soviet Bloc. Soviet exports, however, will increase during 1959-65 only if the Soviet leaders pursue in trade with underdeveloped areas a more vigorous policy than they have demonstrated up to the present.

Imports of motor vehicles and tractors by the USSR will have little importance during 1959-65. It is likely that the USSR will continue to import prototypes of motor vehicles and tractors from the Free World for purposes of study and possible adaptation in domestic production. It is likely also that some of the European Satellites will continue to export to the USSR special types of motor vehicles, such as buses, mobile workshops, and heavy trucks. The number of such vehicles to be imported annually may increase from the estimated import figure of 5,500 units in 1958 to an annual total of twice that amount. This new figure, however, still would be less than 2 percent of estimated Soviet production of motor vehicles for 1965.

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APPENDIX A

METHODOLOGY

As an example of the techniques employed in the analysis of Soviet trade in motor vehicles and tractors, the process for estimating Soviet exports of motor vehicles to Afghanistan in 1955 and 1956 is described below.

Because Soviet exports in 1955 and 1956 included both military and commercial motor vehicles, it is necessary for accurate analysis to attempt to separate probable military exports from civilian exports. The Soviet statistical review of foreign trade generally has omitted any mention of motor vehicles exported under the terms of the armament agreements. An exception to this rule is the listing of jeeps exported by the USSR to the Indonesian army in 1957-58. This particular transaction has been well publicized by both the USSR and the Indonesians, whereas Soviet military aid to Afghanistan has not been discussed openly by either party. One of the major tasks in the analysis of Soviet trade with Afghanistan was the comparison of figures from the statistical review with data available from all other sources to determine whether or not military motor vehicles were included in the official Soviet figures. Soviet exports to Afghanistan, as reported in the Soviet statistical review of foreign trade, 24/ in units, follow:

<u>Year</u>	<u>Trucks</u>	<u>Automobiles</u>	<u>Buses</u>	<u>Other Vehicles*</u>
1955	130	98	15	40
1956	216	246	20	59

In 1955 the Afghan Ministry of Government Monopolies purchased from the USSR the following: 47 Pobeda and 10 Moskvich automobiles and 37 GAZ-69 jeeps, totaling 94 automobiles for civilian use. 25/ In 1956 the same ministry received 50 Pobeda automobiles, 86 GAZ-69 jeeps, 5 ZIM limousines, and 138 Moskvich automobiles, totaling 279 automobiles. 26/ Because these annual totals are reasonably close to the official figures listed above, it is assumed that the statistical reviews reporting only nonmilitary shipments to Afghanistan. This assumption is borne out by the fact that the Afghans probably imported GAZ-69 jeeps for the army in 1955. It is known that between 1955 and November 1957 the Afghan army imported at least 765 jeeps through the port of entry at Termez. 27/ On the basis of information on the dates of shipments of other models of military motor vehicles, it is estimated that 255 units, or 1/3 of these jeeps, were exported from the USSR to Afghanistan in 1955 and 255 more in 1956. Thus total exports of automobiles from the USSR to Afghanistan are estimated at 349 units in 1955 and 534 in 1956.

* Gasoline tankers, fire engines, and water tankers.

As for buses, the USSR exported 15 ZIS-155 buses to Kabul in the summer of 1955. 28/ In March 1956, another shipment of 15 ZIS-155 buses arrived in Kabul. 29/ In addition, the Ministry of Government Monopolies in December 1955 ordered 5 ZIS-155 buses, presumably for delivery in 1956. 30/ sources are, therefore, in complete accord with the Soviet statistical review of foreign trade on shipments of buses to Afghanistan in 1955 and 1956.

Soviet exports of trucks and "other vehicles" are somewhat more difficult to estimate from collateral sources because of duplications and omissions in reporting. According to source 31/, in the first half of 1955 the Afghan Ministry of Public Works received the following motor vehicles: 16 GAZ-93 dump trucks, 5 GAZ-51 trucks, 70 ZIS-585 dump trucks, 10 ZIS-150 trucks, 4 ZIS water tankers, 5 ZIS gasoline tankers, and 2 ZIS mobile workshops. The first 4 of these models are trucks, and the last 3 are "other vehicles." According to source 32/, before the end of 1955 the following motor vehicles also were imported from the USSR by the Afghan Ministry of Public Works and the Ministry of Government Monopolies: 8 YaAZ-210 trucks, 20 MAZ-200 trucks, 20 gasoline tankers (type unknown), and 10 ABTs-ZIS-150 gasoline tankers. It is estimated on the basis of these reports that the civilian branches of the Afghan government received, in 1955, 129 trucks and 41 special vehicles. These totals correspond with the Soviet official figures. In addition, it is known that by November 1957 the Afghan army held 1,439 ZIS-150 trucks, 33/ of which approximately 1,000 were delivered in 1956 and approximately 200 in 1957. It is estimated that the residual amount, 239 ZIS-150 trucks, was exported to Afghanistan in 1955. Thus the total export of trucks and "other vehicles" to Afghanistan in 1955 was 409 units (129 plus 41 plus 239).

In 1956, according to source 34/, the Afghan Ministry of Government Monopolies received the following trucks and "other vehicles" from the USSR: 100 ZIS-150 trucks, 129 MAZ-200 trucks, 2 YaAZ-210 trucks, 3 YaAZ-210G truck tractors, 55 ABTs-MAZ-200 gasoline tankers, and 1 PMG fire engine.

It is estimated on this basis that 234 trucks and 56 special vehicles were exported from the USSR to Afghanistan in 1956. In addition to these totals of civilian vehicles, which correspond roughly to figures from the Soviet statistical review of foreign trade, the Afghan army in December 1956 received about 1,000 ZIS-150 trucks and at least 30 ZIS-151 trucks. 35/ Therefore, it is estimated that in 1956 the USSR exported 1,320 trucks and "other vehicles" to Afghanistan.

APPENDIX B

STATISTICAL TABLES

The tables in this Appendix are based on source 36/ and on approximately 600 additional sources. Source reference numbers for references to the most important of the additional sources are given in the footnotes of the tables.

Table 1

Soviet Imports of Motor Vehicles
Selected Years, 1913-58

<u>Year</u>	<u>Units</u>	<u>Estimated Value in the Year of Trade (Thousand Rubles) <u>a/</u></u>
1913	5,416	N. A.
1928	1,487	N. A.
1931	2,892	N. A.
1938	66	N. A.
1946	113	N. A.
1955	153	6,992
1956	916	41,095
1957	2,319	69,000 <u>b/</u>
1958	5,500 <u>b/</u>	N. A.

a. Ruble values are given in current rubles throughout this table. A ruble-dollar ratio of 4 to 1 was used for imports of motor vehicles, which is not necessarily an accurate reflection of the dollar value.

b. Estimated.

Table 2
Soviet Imports of Motor Vehicles, by Type of Vehicle
1955-58

Type	Units			
	1955	1956	1957	1958
Trucks, cargo or dump body	3	74	1,071	2,945
Automobiles, including station wagons	0	15	679	2,000
Buses	30	343	185	305
Mobile workshops	0	200	4	30
Refrigerator trucks	27	164	120	0
Timber haulers	93	102	250	200
Grain transporters, 24-ton capacity	0	0	10	20
Total	<u>153</u>	<u>898 a/</u>	<u>2,319</u>	<u>5,500 b/</u>

a. According to source 37/, in 1956 the USSR imported 916 vehicles. Therefore, 18 imported motor vehicles are not accounted for in this table.

b. Estimated.

Table 3

Soviet Imports of Motor Vehicles, by Country of Origin
1955-58

Country of Origin	Units			
	1955	1956	1957	1958
Sino-Soviet Bloc				
Czechoslovakia <u>a/</u>	1	60	1,602	4,300
East Germany	0	200	0	0
Hungary <u>b/</u>	20	340	214	735
Subtotal	<u>21</u>	<u>600</u>	<u>1,816</u>	<u>5,035</u>
Free World				
Austria <u>c/</u>	37	164	130	15
Belgium and Luxembourg	0	1	0	0
Canada	0	0	2	0
Finland <u>d/</u>	93	102	250	250
France	0	4	0	0
Italy	0	10	0	0
Sweden	0	0	3	0
Switzerland	0	1	0	0
UK	0	0	6	0
US	0	14	2	0
West Germany <u>e/</u>	0	13	100	200
Subtotal	<u>130</u>	<u>309</u>	<u>493</u>	<u>465</u>
Unknown origin	<u>2</u>	<u>7</u>	<u>10</u>	<u>0</u>
Total	<u>153</u>	<u>916</u>	<u>2,319</u>	<u>5,500</u> <u>f/</u>

a. 38/

b. 39/

c. 40/

d. 41/

e. 42/

f. Estimated.

Table 4

Soviet Production of Motor Vehicles
1955-57

Year	Thousand Units			
	Trucks	Passenger Automobiles	Buses	Total
1955	329.0	107.8	8.5	445.3
1956	357.6	98.0	9.2	464.8
1957	371.6	113.6	10.3	495.5

Table 5

Soviet Imports of Tractors
Selected Years, 1928-58

<u>Year</u>	<u>Units</u>	<u>Estimated Value in the Year of Trade (Thousand Rubles) ^{a/}</u>
1928	2,500	N.A.
1931	27,800	N.A.
1946	202	N.A.
1955	18	258
1956	127	1,478
1957	46	712
1958	N.A.	N.A.

a. Ruble values are given in current rubles throughout this table. A ruble-dollar ratio of 4 to 1 was used for imports of tractors, which is not necessarily an accurate reflection of the dollar value.

Table 6

Soviet Imports of Tractors, by Country of Origin
1955-57

<u>Country of Origin</u>	<u>Units</u>		
	<u>1955</u>	<u>1956</u>	<u>1957</u>
Austria ^{a/}	0	0	30
Canada	0	0	5
France	0	6	3
Sweden	0	4	0
UK	3	89	3
US	0	18	2
West Germany ^{b/}	15	8	3
Unknown	0	2	0
Total	<u>18</u>	<u>127</u>	<u>46</u>

a. 43/

b. 44/

Table 7
Soviet Production, Imports, and Distribution of Motor Vehicles
1955-57

Year	Production <u>a/</u>	Imports	Distribution	
			Consumption <u>b/</u>	Exports <u>c/</u>
1955	445,300	153	409,000	36,441
1956	464,800	916	431,000	34,683
1957	495,500	2,319	458,900	38,926

a. 45/

b. The totals listed in this table as consumption are residuals derived by subtracting exports from the sum of production and imports.

c. Including military exports and gifts and aid.

Table 8
Soviet Production, Imports, and Distribution of Tractors a/
1955-57

Year	Production	Imports	Distribution	
			Consumption <u>b/</u>	Exports
1955	163,400	18	155,400	8,011
1956	184,000	127	178,600	5,487
1957	204,000	46	197,300	6,724

a. 46/

b. The totals listed in this table as consumption are residuals derived by subtracting exports from the sum of production and imports.

Table 9
Soviet Exports of Motor Vehicles a/
Selected Years, 1938-57

<u>Year</u>	<u>Units</u>	<u>Estimated Value in the Year of Trade (Thousand Rubles) <u>b/</u></u>
1938	7,080	N. A.
1946	2,092	N. A.
1955	36,441	315,000
1956	34,683	288,000
1957	38,926	297,000

- a. Including military exports and gifts and aid.
b. Ruble values are given in current rubles throughout this table. A ruble-dollar ratio of 4 to 1 was used for exports of motor vehicles, which is not necessarily an accurate reflection of the dollar value.

Table 10
Soviet Exports of Tractors
Selected Years, 1938-58

<u>Year</u>	<u>Units</u>	<u>Estimated Value in the Year of Trade (Thousand Rubles) <u>a/</u></u>
1938	180	N. A.
1946	155	N. A.
1955	8,011	128,659
1956	5,487	104,364
1957	6,724	107,212
1958	8,639 <u>b/</u>	N. A.

- a. Ruble values are given in current rubles throughout this table. A ruble-dollar ratio of 4 to 1 was used for exports of tractors, which is not necessarily an accurate reflection of the dollar value.
b. Estimated.

Table II

Soviet Exports of Motor Vehicles and Tractors a/
1955-57

Type	1955		1956		1957	
	Units	Percentages of Production	Units	Percentages of Production	Units	Percentages of Production
Motor Vehicles						
Trucks	23,027	7.0	15,822	4.4	13,738	3.7
Automobiles	13,244	12.3	18,619	19.0	25,132	22.1
Buses	170	2.0	242	2.6	56	0.5
Total	<u>36,441</u>	<u>8.2</u>	<u>34,683</u>	<u>7.5</u>	<u>38,926</u>	<u>7.9</u>
Tractors	<u>8,011</u>	<u>4.9</u>	<u>5,487</u>	<u>3.0</u>	<u>6,724</u>	<u>3.3</u>

a. Including military exports and gifts and aid.

Table 12
Soviet Production and Exports of Automobiles a/
1955-57

Model	1955		1956		1957		Export Price (US \$) b/
	Production	Exports	Production	Exports	Production	Exports	
Identified models							
Moskvich	48,900	4,494	41,300	5,022	52,000	7,910	1,000
Pobeda	32,000	4,157	29,000	5,501	26,000	5,579	1,550
GAZ-69 c/	23,000	1,204	23,200	3,205	25,000	5,044	1,750
ZIM	3,600	147	4,000	306	4,000	93	2,500
ZIS	300	14	300	24	300	12	-5,500-
GAZ-67 d/				800	0	0	
Subtotal		10,016		14,858		18,638	
Unidentified models		3,228		3,761		6,494	
Total		13,244		18,619		25,132	

a. Including military exports and gifts and aid.
b. Dollar values are given in current dollars throughout this table.
c. Jeep.
d. Production ceased in 1953.

Table 13
 Exported Exports of Motor Vehicles, by Type of Vehicle a/
 1955-57

Destination and Type	1955		1956		1957	
	Units	Percentage of Exports	Units	Percentage of Exports	Units	Percentage of Exports
Sino-Soviet Bloc						
Trucks	20,159		11,082		7,081	
Automobiles	3,509		6,325		6,313	
Buses	110		127		28	
Subtotal	<u>23,778</u>	<u>65</u>	<u>17,534</u>	<u>51</u>	<u>13,422</u>	<u>34</u>
Free World						
Trucks	2,868		4,740		6,657	
Automobiles	9,735		12,294		18,819	
Buses	15		107		28	
Subtotal	<u>12,618</u>	<u>35</u>	<u>17,141</u>	<u>49</u>	<u>25,504</u>	<u>66</u>
Unknown destination						
Buses	<u>45</u>	Negligible	<u>8</u>	Negligible	<u>0</u>	<u>0</u>
Total	<u>36,441</u>	<u>100</u>	<u>34,683</u>	<u>100</u>	<u>38,926</u>	<u>100</u>

a. Including military exports and gifts and aid.

Table 14
Soviet Exports of Motor Vehicles, by Country of Destination a/*
1955-57

Destination	Trucks			Automobiles			Buses			Units		
	1955	1956	1957	1955	1956	1957	1955	1956	1957	1955	1956	1957
Sino-Soviet Bloc												
Albania b/	232	273	445	59	26	75	0	4	6	0	4	6
Bulgaria c/	1,471	1,650	1,900	159	201	525	8	7	5	8	7	5
Communist China d/	5,485	3,447	448	664	515	254	16	24	1	16	24	1
Czechoslovakia e/	13	10	31	209	3,513	2,671	0	0	0	0	0	0
East Germany f/	0	0	0	283	585	545	0	0	0	0	0	0
Hungary g/	326	620	116	289	276	778	0	0	0	0	0	0
Mongolia h/	679	774	545	189	138	155	37	87	15	37	87	15
North Korea	1,677	1,311	611	183	45	139	0	0	0	0	0	0
North Vietnam i/	209	202	57	103	50	2	3	0	0	3	0	0
Poland	3,379	1,580	1,139	716	339	494	0	0	0	0	0	0
Rumania j/	6,688	1,215	1,789	655	637	675	46	5	1	46	5	1
Total	20,159	11,082	7,081	3,509	6,325	6,313	110	127	28	110	127	28

* Footnotes for Table 14 follow on p. 27.

Table 14
Soviet Exports of Motor Vehicles, by Country of Destination a/
1955-57
(Continued)

Destination	Units									
	Trucks			Automobiles			Buses			
	1955	1956	1957	1955	1956	1957	1955	1956	1957	
Free World										
Western Europe										
Austria k/	0	0	0	14	2	1	0	0	0	0
Belgium	0	0	0	95	51	231	0	0	0	0
Denmark	0	0	0	0	16	2	0	0	0	0
Finland l/	2,447	1,112	90	6,000	6,634	6,792	0	0	0	0
Holland	0	0	0	33	3	30	0	0	0	0
Norway m/	0	22	0	2,512	2,042	1,600	0	0	0	0
Sweden	0	0	0	20	45	114	0	0	0	0
Subtotal	2,447	1,134	90	8,674	8,793	8,770	0	0	0	0
Underdeveloped countries										
Afghanistan n/	409	1,320	1,911	349	534	455	15	20	6	0
Argentina	0	21	10	0	53	200	0	0	0	0
Burma o/	0	118	1	63	371	636	0	0	0	0
Ceylon p/	0	0	1	0	0	4	0	0	0	0
Egypt q/	0	1,142	2,534	3	1,267	568	0	87	13	0
Ethiopia r/	0	0	1	0	10	11	0	0	0	0

Table 14
Soviet Exports of Motor Vehicles, by Country of Destination a/
1955-57
(Continued)

Destination	Trucks			Automobiles			Buses			Units
	1955	1956	1957	1955	1956	1957	1955	1956	1957	
	Free World (Continued)									
Underdeveloped countries (Continued)										
Greece s/	0	0	0	27	28	189	0	0	0	0
Iceland t/	0	0	0	291	371	458	0	0	0	0
India u/	0	28	7	3	12	46	0	0	0	0
Indonesia v/	0	6	34	0	14	3,327	0	0	0	0
Iran w/	6	53	219	285	401	1,855	0	0	0	0
Jordan x/	0	0	28	0	0	0	0	0	0	0
Kuwait y/	0	0	0	0	0	5	0	0	0	0
Lebanon z/	6	12	17	6	2	11	0	0	0	0
Libya aa/	0	0	0	0	0	10	0	0	0	0
Pakistan	0	2	0	15	2	0	0	0	0	0
Sudan bb/	0	0	4	0	1	6	0	0	0	0
Syria cc/	0	124	1,393	14	62	670	0	0	0	0
Turkey dd/	0	0	0	0	3	0	0	0	0	9
Uruguay	0	6	0	0	0	0	0	0	0	0
Yemen ee/	0	20	318	0	0	0	0	0	0	0
Yugoslavia ff/	0	754	89	5	370	1,598	0	0	0	0
Subtotal	421	3,606	6,567	1,061	3,501	10,049	15	107	28	28

Table 14
Soviet Exports of Motor Vehicles, by Country of Destination a/
1955-57
(Continued)

Destination	Units								
	Trucks		Automobiles		Buses				
	1955	1956	1957	1955	1956	1957			
Total	2,868	4,740	6,657	9,735	12,294	18,819	15	107	28
Unknown destination							45	8	28
Grand total	23,027	15,822	13,738	13,244	18,619	25,132	170	242	56

a. Including military exports and gifts and aid.

- b. 47/
- c. 48/
- d. 49/
- e. 50/
- f. 51/
- g. 52/
- h. 53/
- i. 54/
- j. 55/
- k. 56/
- l. 57/
- m. 58/
- n. 59/
- o. 60/
- p. 61/
- q. 62/
- r. 63/
- s. 64/
- t. 65/
- u. 66/
- v. 67/
- w. 68/
- x. 69/
- y. 70/
- z. 71/
- aa. 72/
- bb. 73/
- cc. 74/
- dd. 75/
- ee. 76/
- ff. 77/

Table 15

Soviet Exports of Motor Vehicles to the Free World
1955-57

<u>Destination</u>	<u>Units</u>		
	<u>1955</u>	<u>1956</u>	<u>1957</u>
Western Europe	<u>11,121</u>	<u>9,927</u>	<u>8,860</u>
Underdeveloped countries			
Military vehicles	494	2,251	8,476
Other	1,003	4,963	8,168
Subtotal	<u>1,497</u>	<u>7,214</u>	<u>16,644</u>
Total	<u>12,618</u>	<u>17,141</u>	<u>25,504</u>

Table 16

Soviet Exports of Military Motor Vehicles to Underdeveloped Countries
1955-57

<u>Destination</u>	<u>Units</u>		
	<u>1955</u>	<u>1956</u>	<u>1957</u>
Afghanistan	494	1,285	1,367
Egypt	0	769	1,805
Indonesia	0	20	3,351
Syria	0	157	1,834
Yemen	0	20	119
Total	<u>494</u>	<u>2,251</u>	<u>8,476</u>

Table 17
Soviet Exports of Tractors, by Area of Destination
1955-58

Destination	1955		1956		1957		1958 a/	
	Units	Percentage of Exports	Units	Percentage of Exports	Units	Percentage of Exports	Units	Percentage of Exports
Sino-Soviet Bloc	7,967	99.5	4,833	88.1	4,355	64.8	6,659	77.1
Free World								
Western Europe	32		37		330		10 b/	
Underdeveloped countries	12	0.5	617	11.9	2,039	35.2	1,960	22.9
Subtotal	44	0.5	654	11.9	2,369	35.2	1,970	22.9
Total	8,011	100.0	5,487	100.0	6,724	100.0	8,639	100.0

a. Estimated.

b. Minimum estimate.

Table 18
Soviet Exports of Tractors, by Country of Destination a/*
1955-58

Destination	Units			
	1955	1956	1957	1958
Sino-Soviet Bloc				
Albania <u>b</u> /	248	1	242	357
Bulgaria <u>c</u> /	2,075	2,242	2,000	2,500
Communist China <u>d</u> /	1,191	803	68	1,802
Czechoslovakia <u>e</u> /	1,734	891	1,459	1,000
East Germany <u>f</u> /	120	33	18	N. A.
Hungary <u>g</u> /	158	128	147	N. A.
Mongolia <u>h</u> /	46	155	175	800
North Korea <u>i</u> /	962	0	0	0
North Vietnam <u>j</u> /	16	52	0	0
Poland <u>k</u> /	111	254	145	N. A.
Rumania <u>l</u> /	1,306	274	101	200
Total	<u>7,967</u>	<u>4,833</u>	<u>4,355</u>	<u>6,659</u> <u>m</u> /
Free World				
Western Europe				
Austria <u>n</u> /	0	10	15	10
Belgium	0	2	0	N. A.
Finland <u>o</u> /	29	20	315	N. A.
France	0	1	0	N. A.
Norway	1	4	0	N. A.
Sweden	2	0	0	0
Subtotal	<u>32</u>	<u>37</u>	<u>330</u>	<u>10</u> <u>p</u> /
Underdeveloped countries				
Afghanistan	0	33	1	N. A.
Argentina <u>q</u> /	0	1	0	0
Burma <u>r</u> /	0	38	0	60
Egypt <u>s</u> /	0	8	141	370
Greece <u>t</u> /	3	54	65	140
Iceland <u>u</u> /	0	3	0	N. A.
India <u>v</u> /	1	113	187	380
Indonesia <u>w</u> /	0	1	0	N. A.
Iran <u>x</u> /	4	37	2	N. A.
Lebanon <u>y</u> /	0	20	12	N. A.
Mexico <u>z</u> /	0	0	1	N. A.
Sudan <u>aa</u> /	0	1	4	N. A.

* Footnotes for Table 18 follow on p. 31.

Table 18

Soviet Exports of Tractors, by Country of Destination a/
1955-58
(Continued)

Destination	Units			
	1955	1956	1957	1958
Free World (Continued)				
Underdeveloped countries (Continued)				
Syria <u>bb/</u>	0	50	64	N. A.
Turkey <u>cc/</u>	4	1	0	520
Uruguay <u>dd/</u>	0	6	0	N. A.
Yemen	0	0	0	Negligible
Yugoslavia <u>ee/</u>	0	251	1,562	500
Subtotal	<u>12</u>	<u>617</u>	<u>2,039</u>	<u>1,970 p/</u>
Total	<u>44</u>	<u>654</u>	<u>2,369</u>	<u>1,980 p/</u>
Grand total	<u>8,011</u>	<u>5,487</u>	<u>6,724</u>	<u>8,639 m/</u>

- a. Including military exports and gifts and aid.
- b. 77/
- c. 78/
- d. 79/
- e. 80/
- f. 81/
- g. 82/
- h. 83/
- i. 84/
- j. 85/
- k. 86/
- l. 87/
- m. Estimated.
- n. 88/
- o. 89/
- p. Minimum estimate.
- q. 90/
- r. 92/
- s. 93/
- t. 94/
- u. 95/
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APPENDIX C

GAPS IN INTELLIGENCE

The publication in 1958 of the Soviet statistical review of foreign trade provided a basis for compiling reasonably good estimates of commodity trade of the USSR in 1955-57. The statistical review, however, must be used with caution because of discrepancies and omissions. Generally there is a residual from the announced total Soviet shipments of a commodity and the sum of trade in that commodity with other countries. Occasionally the sum of exports to other countries exceeds the figure given as total trade in that commodity. Furthermore, the trade figures given as total trade in the statistical review are a compilation of commercial transactions only, excluding gifts, military shipments, and aid and rehabilitation shipments.

Nonmilitary shipments to countries of the Free World frequently are reported to the UN Statistical Office or are made available to representatives of the US Department of State. The volume of Soviet trade in motor vehicles and tractors to countries of the Bloc is more difficult to assess.

Some information on commodity trade of the USSR with Bulgaria, Rumania, Poland, and East Germany is included in the recently published economic statistical handbooks of these countries. Except for the Soviet statistical review of foreign trade, there is virtually no information available on trade with Mongolia and very little on trade with North Korea and North Vietnam.

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APPENDIX D

SOURCE REFERENCES

Evaluations, following the classification entry and designated "Eval.," have the following significance:

<u>Source of Information</u>	<u>Information</u>
Doc. - Documentary	1 - Confirmed by other sources
A - Completely reliable	2 - Probably true
B - Usually reliable	3 - Possibly true
C - Fairly reliable	4 - Doubtful
D - Not usually reliable	5 - Probably false
E - Not reliable	6 - Cannot be judged
F - Cannot be judged	

"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this report. No "RR" evaluation is given when the author agrees with the evaluation on the cited document.

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