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The Economy

U.S.S.R.

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NATIONAL INTELLIGENCE SURVEY

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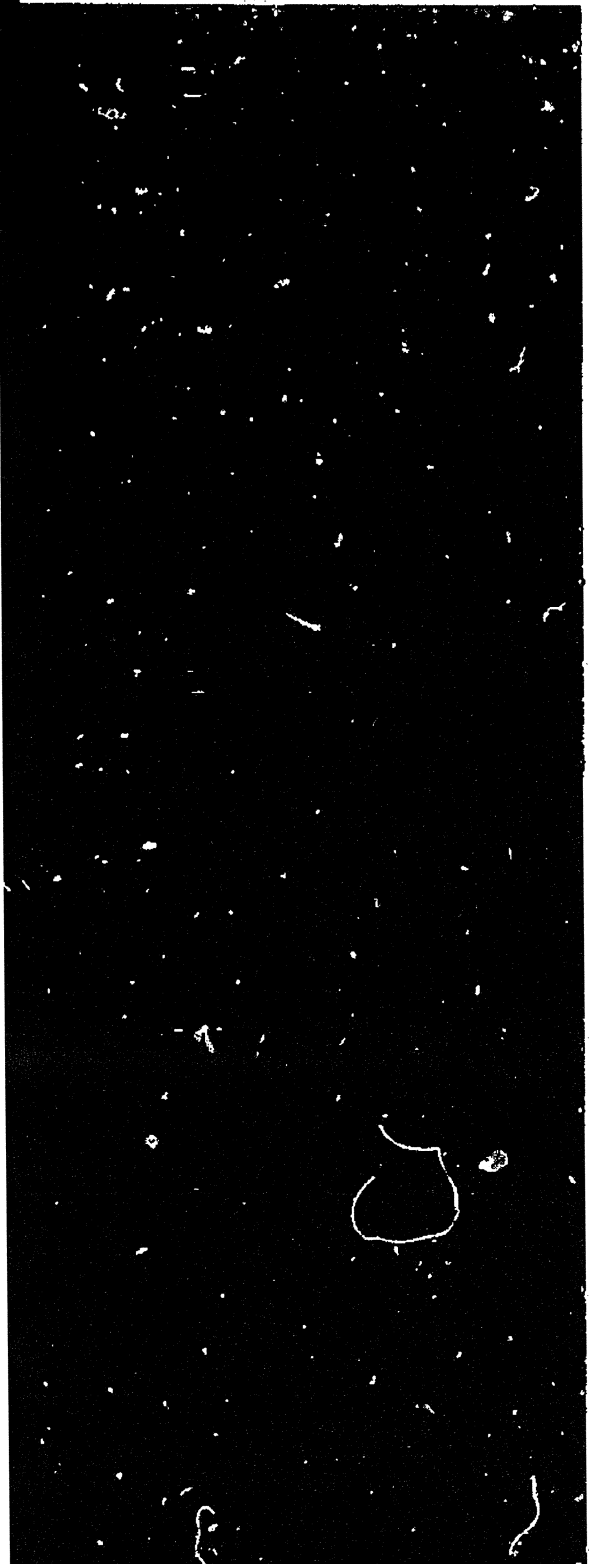
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U.S.S.R.

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C. Structure of the economy

1. Agriculture, fisheries, and forestry (U/OU)

a. Problems and Policies in Agriculture

Agriculture is the most serious, abiding, and intractable problem area of the Soviet economy. Even in years of bumper harvests Soviet farms have not produced as much food as desired or in the variety and quality demanded by the consumer. In particular, only a fraction of the demand for meat, fruit, and most vegetables has been met, forcing the Soviet diet to be heavily weighted with bread products and carbohydrates, such as potatoes. Production has fluctuated widely, moreover, with serious shortfalls often following good harvests. Most of the leading agricultural areas are handicapped by short growing seasons, low rainfall, and extremes of temperature. In addition, the regime's insistence on controlling and directing farm operations from above, and its failure to provide both adequate incentives and sufficient supplies adversely affect the productivity of the nation's farmers.

Developments in agriculture under Khrushchev illustrate how swings in policy together with sharp variations in weather created an unstable situation in food production. During 1953-58 the regime accorded substantially higher priority to agriculture, resulting in increased allocations of machinery to the farms as well as numerous incentive measures, such as a sharp rise in real income, to induce Soviet farmers to work longer and harder. Khrushchev's campaign to develop virgin and long-fallowed lands also contributed to an almost 50% increase in farm output. After 1958, however, the failure to sustain these policies led to a drastic slowdown in the growth of farm output. Farm production and incomes stagnated during the early 1960's, and Khrushchev's plans for expanding sown acreage were not attained. Continuous cropping in the new lands resulted in the deterioration of the soil structure, severe infestations of weeds, erosion, and a depletion of soil moisture reserves. When combined with extensive droughts in 1963 and 1965, these policies led to a decline in the grain harvest, and 11 million tons of grain had to be imported to maintain food supplies at a barely adequate level.

In March 1965 the Brezhnev-Kosygin leadership unveiled a far-reaching program for accelerating the growth of agricultural output and for reducing the annual fluctuations in yields. The program for 1966-70 included a doubling of investment in agriculture compared with the period 1961-65, higher prices to producers for major agricultural products, and lower

prices for nonagricultural goods sold to the farms. The new regime also proposed a reduction in the party's interference in farming operations. Generally successful implementation of these policies and an extended period of favorable weather led to an increase of more than one-fifth in agricultural output during 1966-68 compared with farm production during the last 3 years of Khrushchev's regime, 1962-64. As with Khrushchev, however, the early success of the Brezhnev program led to a considerable weakening of the farm sector's priority in subsequent years. The rapid increase planned in the supply of industrial products to agriculture did not occur. The original plan for deliveries of investment goods (tractors, trucks, and other agricultural machinery) and industrially produced materials (fertilizers, lubricants, electricity, and the like) was cut back in 1967-69, but even these reduced plans were not met with the exception of fertilizer. In 1970, the last year of the first Brezhnev program, nonagricultural inputs rose by almost 2.5%, or as much as the total increase achieved during 1967-69. This growth in the resource base in 1970, coupled with generally favorable weather, boosted net farm output to a record level.

Despite the shortfall in deliveries of tractors and other agricultural machinery to the farms during 1966-70, the U.S.S.R. has achieved a fairly high level of mechanization in such basic field operations as the plowing, seeding, cultivation, and harvesting of grain crops. Raising the level of mechanization in other operations, particularly in the livestock sector, has received special emphasis in recent years, but progress has been slow. Deliveries of new equipment have been sufficient to continue the buildup of inventories of a number of major items, although the rate was lower in the early 1970's than a decade earlier. For certain other categories, inventories have declined because of insufficient output or production delays as new models were introduced. Inventories in selected years of the more important agricultural machines are as follows (in thousands of units as of 1 January):

	1961	1966	1972
Tractors	1,122	1,513	2,046
Trucks	778	962	1,243
Grain combines	497	520	639
Ensilage combines	121	205	149
Beet combines	34	68	56
Potato combines	10	24	40
Cotton pickers	11	34	40
Windrowers	281	401	327
Tractor plows	782	960	942
Tractor drills	1,049	1,274	1,218
Grain cleaning machines	95	129	156

A major factor contributing to the inefficient utilization of equipment and the consequent high costs of production in Soviet agriculture is the poor state of maintenance and repair work. Moreover, spare parts are in short supply, highly priced, and often of poor quality. During 1966-70 the production of spare parts for tractors and agricultural machinery was only about 80% of officially estimated requirements; improvement in the supply of parts in 1971-72 was marginal at best.

Deliveries of fertilizer to agriculture were scheduled to reach 55 million tons in 1970, more than double the quantity supplied in 1965, but they amounted to only 46 million tons because the introduction of new fertilizer manufacturing capacity during 1966-70 was substantially behind schedule. The plan for 1971-75 calls for an increase of 40 million tons in fertilizer production capacity; if the target for 1973 is met, almost half of this goal will have been achieved.

Even before the results of the 1970 harvest were known it was clear that the regime was concerned over the situation in the agricultural sector. The Second Five Year program for improving Soviet agriculture was first spelled out at a party plenum in July 1970, almost a year before the balance of the overall economic plan for 1971-75 was announced. Despite the concern over food supplies, however, the agricultural output targets for 1971-75 appear only moderately ambitious. Net agricultural output is slated to increase by 3.7% annually compared with average annual increments of about 4.5% registered during 1966-70.

The plan for additions to farm resources calls for an estimated increase of 10% between 1970 and 1975, with a marked emphasis on industrially produced items. As a result, the capacity in selected branches of industry is to be expanded to provide the flow of producer durables, construction materials, agricultural chemicals, and other products necessary to support higher levels of direct investment in agriculture. The highlights of the new program are as follows:

(1) Investment in agriculture is scheduled to grow an average of 9.5% a year and to rise as a share of total investment from 23.5% in 1970 to 27.5% in 1975.

(2) Total investment in farm machinery and equipment is projected to increase 54% over the value of such deliveries in the last half of the 1960's.

(3) About one-fifth of total investment in agriculture is to be expended on land amelioration, largely for reclamation by irrigation and drainage. This will expand the stock of irrigated and drained land by about 30%.

(4) Industrial items used in farm production are planned to rise at an average annual rate of 6.5% during 1971-75.

Although certain aspects of the program were slightly behind schedule as of mid-1973, important steps were taken in 1971 and 1972 to implement the 1971-75 plan. Total inputs increased at an average annual rate of about 2%, or slightly above the growth required to meet the 1975 goal. Hence, despite the surge in output in 1970—agricultural production rose 13.5% over 1969—followed by another record output in 1971, the regime has remained firm in its resource commitment to the agricultural sector.

Farm output in 1972 declined by about 7% from the high level of 1971, largely as a result of unfavorable weather conditions. The difference in the regime's response to harvest disasters in 1963 and 1972 graphically illustrates a fundamental shift in the leadership's agricultural policy. In the earlier year, Khrushchev minimized his foreign commitment, choosing instead to allow consumers to suffer and livestock herds to be reduced sharply. In 1972 the Brezhnev-Kosygin regime chose to spend vast sums on foreign grain (28 million tons in the period 1972-first half 1973) in a successful effort to save herds and maintain food supplies. Moreover, continued adherence by the leadership to developing the livestock sector means that the U.S.S.R. probably will become a net importer of feed grains in the years ahead.

b. Main characteristics of Soviet agriculture

(1) *Land use*—The U.S.S.R. is the largest country in the world with a total land area of 8.6 million square miles. About one-half of Europe and one-third of Asia lie within Soviet boundaries. Of the total land area, however, only about 11% is suitable for cropping (see the Land Use inset on the Summary Map at the end of this chapter). Another 16% can be used only for meadows and pastures because of poor soil or low precipitation. More than two-thirds of the U.S.S.R. is comprised of forests, deserts, and wasteland. Much of the latter is suitable for limited grazing of livestock, ranging from raising reindeer in the north to nomadic herding of sheep and goats in the arid regions of the south.

(2) *Resource base*—The U.S.S.R. has more than twice the land area of the United States, but its arable is only a third larger. The Soviet Union, moreover, has no areas that correspond to the most productive farm regions in the United States, which until recently had been reducing the area under cultivation. In 1971 the sown area in the U.S.S.R. amounted to 512 million acres compared with the 301 million acres in the United States.

Harsh climatic conditions impose severe restrictions on Soviet agriculture. The basic environmental problems are low temperatures and excess soil moisture in the north combined with unusual heat and aridity in the south. The short growing season and the extremes of temperature limit the types of crops that can be grown even in the critical "fertile triangle" of Soviet agriculture extending from the Ukraine eastward nearly to Irkutsk.

(3) *Farm organization*—Soviet agriculture is divided into a socialized sector, which predominates, and a private sector. The former, consisting primarily of state and collective farms, accounts for roughly two-thirds of the total agricultural output. The private sector consists of about 30 million small, private plots, one of the last legal remnants of private enterprise in the U.S.S.R. As all land is owned by the state, the basic difference between these two types of organization lies in the ownership of assets other than land, in the method of capital formation, in the payment for labor, and in the system of marketing agricultural produce.

Between 1958 and 1971 the number of state farms increased from 6,002 to 15,502, and the number of collective farms declined by more than half—from 67,700 to 32,300—partly through the amalgamation of smaller collective farms and partly through conversion to state farms. As the following tabulation shows, by 1971 state farms and other state-owned agricultural enterprises accounted for half of the total sown area in the U.S.S.R.:

	1958		1971	
	MILLION ACRES	PERCENT OF TOTAL	MILLION ACRES	PERCENT OF TOTAL
Socialized sector	465.3	96.3	495.7	96.8
State agriculture	140.6	29.1	256.4	50.1
State farms	129.6	26.8	233.3	45.6
Other state agricultural organizations	11.0	2.3	23.1	4.5
Collective farms	324.7	67.2	239.3	46.8
Private	18.1	3.7	16.5	3.2
Total	483.4	100.0	512.2	100.0

Small-scale private farming on plots averaging little more than an acre in size has been tolerated by the regime for pragmatic reasons despite the ideological contradiction inherent in this capitalistic activity. In 1971, private farming supplied 63% of the potatoes, half of the eggs, 37% of the vegetables, and 35% of the milk and meat produced. The private plots, however, tend to compete with the socialized sector for feed supplies and for the labor of the farmers; consequently, there have been periodic attempts by

the state to decrease the importance of the private sector through discriminatory taxes and reduction in the size of plots and the number of animals permitted. Nevertheless, the fact remains that almost 30% of total agricultural output originates in the private sector, which directly holds only slightly more than 3% of the total sown area. The private sector, however, has access to some land controlled by the socialized sector and uses it for pasturing privately owned livestock and growing hay. If the area in the socialized sector that directly or indirectly produces feedstuffs for the private sector is added to the relatively small amount of land directly held by households, the land area supporting private farming equals roughly one-fifth of the country's total arable land.

(4) *Crops*—The U.S.S.R. grows most crops common to the temperate zone, but grains dominate the pattern, accounting for 57% of the total sown area in 1971. In the same year forage crops accounted for 31% of the total, industrial crops 7%, and potatoes and other vegetables 5% (Figure 12). The total crop area has expanded significantly since 1950, with most of this growth attributable to the New Lands program, largely in Kazakhstan. In 1950-63 a drastic reduction of clean fallowing from 79.1 million acres to 15.6 million acres aided this expansion. By 1968 the area in clean follow had increased to its present level of 45.0 million acres, although it declined again to 40.0 million acres in 1972. As a result, the regime has been unable to raise this figure to a planned amount of about 50 million acres because of the country's continuing critical need for grain. (In clean fallowing, the land is not planted and is cultivated only as needed to prevent the growth of weeds; this permits moisture and nutrient accumulation in the soil to raise crop yields in the following year.)

The distribution of area sown to major grain crops (including pulses) for 1953 and 1972 is shown in the following tabulation as percentages of the total:

	1953	1972*
Bread grains:		
Wheat	45.3	48.7
Rye	19.0	6.8
Total	64.3	55.5
Other grains:		
Barley	9.0	22.7
Corn	3.3	3.3
Miscellaneous**	23.4	18.5
Total	35.7	44.5
Total grains	100.0	100.0

*Preliminary estimates.

**Primarily pulses (beans, peas, lentils), oats, millet, buckwheat, and rice.

FIGURE 12. Sown area, by crop (U/OU)
(Million acre.)

	1950		1955		1960		1965		1971	
	Total area	Per-cent*	Total area	Per-cent*	Total area	Per-cent*	Total area	Per-cent*	Total area	Per-cent*
Grain (including pulses).....	254.2	70.3	305.0	66.4	285.5	57.0	316.4	61.2	291.4	56.9
Industrial crops**.....	30.2	8.4	30.4	6.6	32.3	6.4	37.9	7.3	35.2	6.9
Potatoes and other vegetables.....	25.8	7.1	28.3	6.2	27.7	5.5	26.1	5.1	24.5	4.8
Forage crops***.....	51.3	14.2	95.5	20.8	156.1	31.1	136.3	26.4	161.1	31.4
Total.....	361.5	100.0	459.2	100.0	501.6	100.0	516.7	100.0	512.2	100.0

*Based on unrounded data.

**Includes food crops (primarily sugar beets and sunflower seed) and nonfood crops (primarily cotton, fiber flax, and hemp).

***Cultivated annual and perennial crops supplying hay, silage, pasture, and other feeds of a similar nutrient content.

Although the area sown to grain in the Soviet Union is greater than in the United States, total production is much lower in the U.S.S.R. (Figure 13). Soviet grain production, moreover, is subject to marked fluctuations. The 1958 level of output was not matched until 1964 and not surpassed until 1966; in 1963 and 1965 severe droughts resulted in nearly disastrous harvests. The bumper grain harvest in 1968, however, ranked second only to the 1966 level of production until both were surpassed by record crops in 1970 and 1971. The shortfalls in 1969 and 1972

were caused by above normal winter-kill of winter grains followed by unusually cool and wet growing and harvesting seasons in 1969 and by a severe drought in European U.S.S.R. in 1972. Data for the average annual production and yields of principal crops are shown in Figure 14.

After wheat and rye, potatoes constitute the most important Soviet food crop, especially in the western and central regions of the European U.S.S.R. Since 1960, however, the area planted to potatoes has been falling. In 1972, 19.8 million acres were devoted to

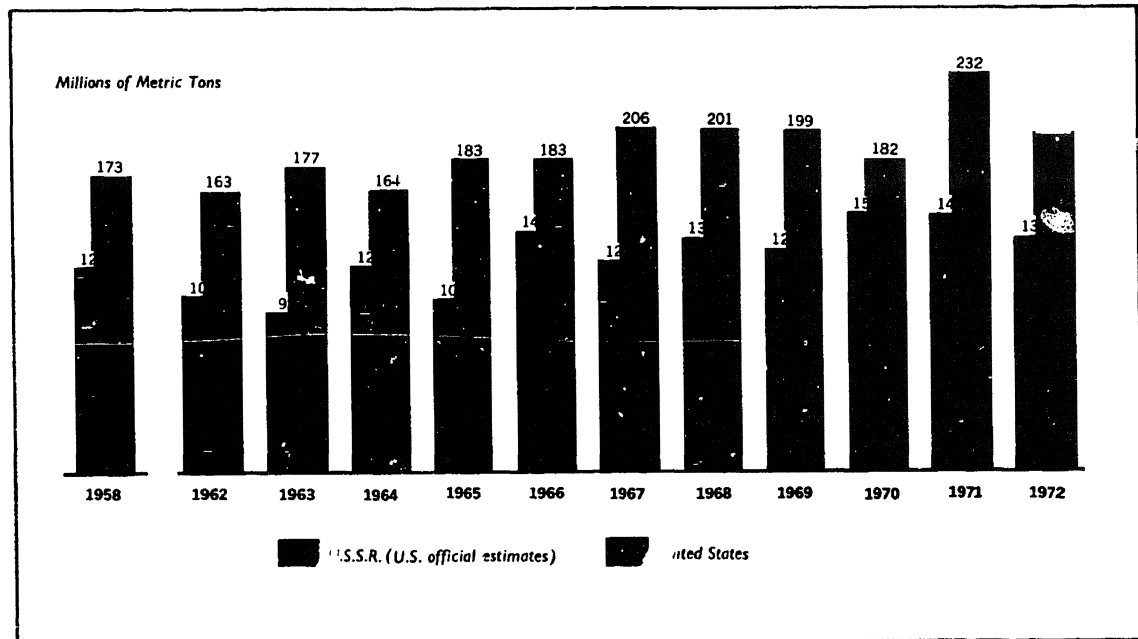


FIGURE 13. Comparison of U.S. and U.S.S.R. grain production (U/OU)

FIGURE 14. Average annual production and yields of principal crops (U/OU)

	1956-60	1961-65	1966-70	1971-72
----- Million metric tons -----				
Production:*				
Total grain and pulses.....	104.7	106.1	135.0	141.2
Bread grain (wheat and rye).....	71.3	64.5	83.1	83.9
Other grain (barley, corn, oats, pulses, millet, rice, buckwheat and miscel- laneous).....	32.4	41.6	51.9	57.3
Sugar beets.....	45.6	59.2	81.1	73.9
Sunflower seed.....	3.4	4.7	5.9	4.9
Potatoes.....	88.3	81.6	94.8	85.2
Other vegetables.....	15.1	16.9	19.5	20.0
----- Metric tons per acre -----				
Yields:**				
Total grain and pulses.....	0.35	0.34	0.45	0.48
Bread grain.....	0.35	0.32	0.43	0.49
Other grain.....	0.36	0.37	0.48	0.48
Sugar beets.....	7.43	6.66	9.22	8.84
Sunflower seed.....	0.34	0.42	0.49	0.44
Potatoes.....	3.79	3.82	4.66	4.35
Other vegetables.....	4.08	4.69	5.35	5.06

*Figures for grain crops and sunflower seed are U.S. official estimates; all other production data are given as officially reported by the U.S.S.R.

**Average annual yields, based on official Soviet data on the sown area for the respective crops.

potato production, more than 6% less than in 1950. Although yields have increased moderately, the average annual production of potatoes in 1961-72 was only 10% greater than the average during the preceding decade. In part the small increase was the result of adverse weather during 1972, which caused a record decline of 16% in the output of potatoes.

The principal industrial food crops are sunflower seed and sugar beets. (The main industrial nonfood crops—cotton and fiber flax—are treated below under natural fibers.) Of the 35.6 million acres sown to industrial crops in 1972, sunflower seed accounted for about 30% and sugar beets (exclusive of sugar beets sown for livestock feed) claimed 24%. Oil from sunflower seed is the basic edible vegetable oil used in the U.S.S.R., accounting for roughly three-fourths of the vegetable oil produced in state industrial enterprises. The acreage planted to sunflowers expanded rapidly after 1963, reaching a peak of 12.4 million acres in 1966 before declining to 10.8 million acres in 1972. This reduction has been offset partially by higher yields attributable in part to the development of new varieties with a higher oil content.

The U.S.S.R. is the world's leading producer of sugar beets, producing more than one-third of the global output, or roughly three times as much as the United States, the second largest producer. Expansion of sown area and improving yields resulted in an upward trend in sugar beet production until 1968, but reduced plantings and lower yields have since cut production to less than 80% of the 1968 level.

FIGURE 15. Number of livestock (U/OU) (Millions)

YEAR*	CATTLE (INCLUDING COWS)		SWINE	SHEEP AND GOATS		HORSES
1928**.....	66.8	33.2	27.7	114.6	36.1	
1950.....	58.1	24.6	22.2	93.6	12.7	
1958.....	66.8	31.4	44.3	130.1	11.9	
1963.....	87.0	38.0	70.0	146.4	9.1	
1964.....	85.4	38.3	40.9	139.4	8.5	
1970.....	95.2	40.5	56.1	135.8	7.5	
1971.....	99.2	41.0	67.5	143.4	7.4	
1972.....	102.4	41.2	71.4	145.3	7.3	
1973.....	104.0	41.7	66.5	144.5	na	

na Data not available.

*Census date is 1 January.

**Present boundaries.

(5) *Livestock and livestock food products*—Since 1950, livestock numbers often have been increased without regard to the available supply of feed (Figure 15). The total supply of feed (in standard feed units of one ton of oat grain) averaged an estimated 200 million metric tons per year during 1959-62, but it declined to less than 180 million metric tons in 1963 and 1964. Feed supplies have trended upward since 1964, however, reaching a peak in 1971, when the supply of available feed units was two-fifths greater than in 1964. As a result, total livestock herds increased moderately during this period, achieving a peak level in 1971; it was not until 1972, however, that hog numbers as well as sheep and goats were restored to the level prevailing before the 1963 agricultural debacle. Although overall livestock numbers appear unchanged in 1972, the amount of usable product attained per animal of most categories of livestock suffered because of feed shortages during the year.

Estimated total production of basic livestock food products is shown in Figure 16.⁴ (Wool is treated below under natural fibers.) The greatest increases in output occurred during 1950-60 before tapering off in 1960-64. After 1964, temporary improvements in the available feed supply provided the basis for more rapid increases in the production of meat and milk. The decline in meat production in the late 1960's reflected not only the decrease in livestock numbers but also the policy of expanding depleted herds. Better feed supplies permitted both output of livestock products and the number of animals to expand during 1970 and 1971 before the disastrous harvest of 1972 led to a decline in meat production during the early months of 1973.

⁴Because a large portion of Soviet livestock is privately owned, verification of Soviet statistics, especially for the production of meat and milk, is difficult. Moreover, no attempt has been made to make the statistics conform to U.S. definitions of products. Information on the output of meat, milk, and other food products processed in state industrial enterprises is presented in Subsection C. 4. e.

FIGURE 16. Output of principal food products (U/OU)
(Millions of metric tons unless otherwise indicated)

	1950	1960	1965	1970	1971	1972
Livestock products:						
Meat*.....	4.9	8.7	10.0	12.3	13.3	13.6
Whole milk.....	35.3	61.7	72.6	83.0	83.2	83.2
Eggs (millions of units).....	11.7	27.5	29.1	40.7	45.1	48.2
Fish catch (including marine animals).....	1.8	3.5	5.8	7.9	7.8	na
Output of food industry:**						
Meat.....	1.6	***4.4	***5.2	***7.1	8.2	8.7
Beef.....	1.0	2.0	2.4	3.5	3.7	na
Pork.....	0.3	1.4	1.8	2.2	2.9	na
Mutton.....	0.2	0.4	0.4	0.4	0.4	na
Poultry.....	<i>Insig</i>	0.2	0.2	0.4	0.4	na
Other.....	0.1	0.5	0.5	0.7	0.8	na
Milk products.....	1.1	8.3	11.7	19.7	19.7	20.0
Butter.....	0.3	0.7	1.1	1.0	1.0	1.1
Cheese.....	0.1	0.2	0.3	0.5	0.5	0.5
Sugar (granulated).....	2.5	6.4	11.0	10.2	9.0	8.9
Vegetable oil.....	0.8	1.6	2.8	2.8	2.9	2.8
Margarine and margarine compounds.....	0.2	0.4	0.7	0.8	0.8	na
Canned foods (billions of cans)†.....	1.5	4.9	7.1	10.7	11.3	12.0
Flour.....	22.0	35.0	37.0	42.0	43.0	na
Bread and bakery products.....	12.4	15.5	19.7	20.0	20.0	20.0
Macaroni products.....	0.4	1.0	1.3	1.2	1.2	na
Beer (millions of decaliters).....	130.8	249.8	316.9	419.0	441.0	na

na Data not available.

*Slaughter weight, including edible offal.

**The sugar and margarine series cover total production. The milk products series is equivalent to state purchases of milk. The butter and vegetable oil series exclude household production. The meat and cheese series exclude household and collective farm production. The bread and bakery products series excludes household, collective farm, and industrial cooperative production. The scope of the remaining series is not defined.

***Figures do not add to totals because of rounding.

†400-gram or 353-cc. cans.

(6) *Natural fibers*—The most important natural fibers produced in the U.S.S.R. are cotton, flax, and wool. The following tabulation shows domestic production meets practically all the country's requirements for these fibers (1971 data, in thousands of metric tons):

	GINNED COTTON	FLAX FIBER	WOOL (WASHED)
Production	2,414	485	214
Imports	243	0	86
Total availability	2,657	485	300
Exports	547	9	14
Apparent consumption ..	2,110	476	286

Imports of cotton and wool provide higher grades of fibers than are generally produced domestically. The Soviet Union also exports natural fibers predominantly to East Europe with some of the cotton shipped to these countries returning as finished cotton goods.

Cotton is the leading fiber crop and principal irrigated crop in the U.S.S.R., with production second only to that of the United States. The output of cotton more than doubled during the period 1950-72 because of increases in the irrigated area sown to cotton, greater application of fertilizer, more effective price incentives, and improved production practices.

The U.S.S.R. produces more than two-thirds of the world output of flax fiber even though the area planted to this crop declined from 4.2 million acres in 1962 to 3.1 million acres in 1972. Although production of wool in 1971 was 19% above the average annual level of 1961-65, it was still inadequate to meet the requirements of the wool textile industry. Preliminary estimates indicate that output in 1972 was about 2% below the 1971 level because the harsh winter increased mortality rates for sheep.

c. Fisheries

With a large and modern fishing fleet, the U.S.S.R. ranks among the leading fishing nations of the world. In 1971 the Soviet Union accounted for about 10.5% of the world's fish catch and about 14% of the global whale catch in the 1970-71 season. The total Soviet catch of fish and marine animals amounted to 7.8 million metric tons in 1971. The catch has more than doubled since 1960 as the result of expansion of fishing on the high seas;⁵ this portion of the catch rose from about 65% of the total in 1960 to roughly 85% in 1971.

The Soviets have relied heavily on the fishing industry to increase the share of animal production in the Soviet diet. In 1971, consumption of fish was 14.8

⁵The term "high seas" refers to oceanic fishing areas and thus excludes the Black, Mediterranean, Caspian, Azov, and Aral Seas.

kilograms per capita compared with 8.9 kilograms in 1959. Production of canned fish increased from 200 million cans (about 71,000 tons) in 1950 to 1,500 million cans (roughly 500,000 tons) in 1971. In addition, the U.S.S.R. has become a net exporter of fish and fish products, although such exports represent only a small share of the total fish catch.

Further development of the fishing industry is planned during the course of the Ninth Five Year Plan for 1971-75 as shown in the following tabulation, in thousand metric tons unless otherwise indicated:

FISH PRODUCTS	1970	
	ACTUAL	PLAN
Live and frozen fish	184	295
Smoked and dried fish	148	282
Salt herring	406	554
Fish and whale meal for livestock feed	393	675
Canned fish products (million standard cans)	1,405	1,900

As competition for the world's fish resources has become more intense, the U.S.S.R. has begun to participate in international programs to regulate fishing practices and conserve world fish resources. As in other areas, however, Soviet national interests will predominate, and further exacerbation of international fishing tensions and problems can be expected. The Soviets are likely to concentrate increasingly on fishing in the waters of the Southern Hemisphere as the rich northern grounds are depleted or become potential causes of conflicts with the leading non-Communist powers.

d. Adequacy of food supply and diet

The Soviet population consumes about 3,200 calories per day per capita, or almost as much as average per capita consumption in the United States (Figure 17). The Soviet figure has not changed appreciably during the past decade, but the Soviet diet has improved markedly since the early 1950's, although it is still deficient in terms of the share of calories supplied by quality foods such as meat, vegetables, and fruit. Per capita consumption of meat, fish, and fats and oils has doubled since that time, and sugar consumption more than tripled. Conversely, the share of calories supplied by the basic starchy foods—grain products and potatoes—dropped from roughly 70% in 1950 to about 52% in 1971; this share is still more than twice as large as its counterpart in the United States. Furthermore, the lack of any sizable area in the U.S.S.R. suitable for the winter production of fruits and vegetables, the shortage of refrigeration facilities, and the general inadequacy of the

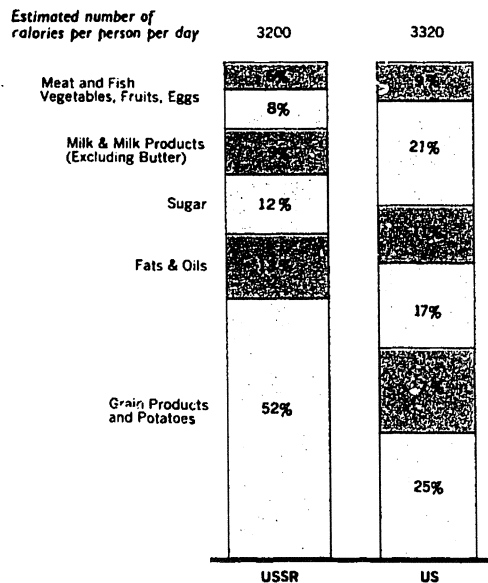


FIGURE 17. Composition of U.S. and U.S.S.R. diets, 1971 (U/OU)

distribution network have imposed a monotonous diet on most of the population during a large part of the year.

The Brezhnev-Kosygin regime is genuinely concerned about raising the quality of the Soviet diet. In 1965, Brezhnev committed the leadership to increasing supplies of high quality foods, especially livestock products, and he decreed a costly investment program to stimulate agricultural production across the board. Nevertheless, meat production grew relatively slowly during the rest of the 1960's. Fueled by rising incomes, however, demand for meat became particularly strong, and beginning in 1969, there were sporadic reports of prolonged local shortages. Early in 1970 the leadership augmented domestic supplies by importing 165,000 tons of meat. The regime continued its commitment to raising the availability of meat supplies by importing a further 225,000 tons in 1971; an increase in domestic production also eased the meat supply situation. In 1972, large meat imports were not needed as domestic production grew sufficiently to permit a 3% increase in per capita consumption of meat.

Because of both the institutional problems besetting Soviet agriculture and the vagaries of the weather, crop production fluctuates widely, occasionally necessitating imports of foodstuffs other than meat.

Grain was imported after poor harvests in 1963, 1965, and 1969, and a record amount was again purchased abroad in 1972. For the next several years substantial imports of grain are likely to become the rule rather than the exception to the extent that the leadership adheres to its program of raising the share of meat in the Soviet diet. This is because the country produces inadequate amounts of feed grains to support rapidly growing herds of livestock even in the best of crop years. Grain imports in the early 1970's permitted the regime to maintain livestock herds as well as the quality and assortment of bread products. Furthermore, imports of substantial quantities of citrus and tropical fruits in recent years are further evidence of the determination by the authorities to raise the dietary quality.

e. Forest resources and products

Forests cover almost 1,850 million acres, or about one-third of the total land area of the U.S.S.R. Nearly one-fourth of the world's forest land capable of producing crops of industrial wood and about one-half of the world's conifers lie within Soviet boundaries. The Soviets, however, have not been able to satisfy their combined needs for home consumption and export despite the enormous volume of standing timber and the fact that the U.S.S.R. produces more timber and lumber than any other country in the world (total log removals in 1971 amounted to 384.8 million cubic meters). This failure is in large part due to the unfavorable geographic location of the U.S.S.R.'s forests in relation to the major consumption centers; three-fourths of the country's forest resources are located east of the Ural Mountains. The movement of wood products imposes a considerable and increasing burden on the transportation system. As a result of the logging industry's concentration in more remote areas, the average length of haul per ton of wood shipped by rail increased from about 530 miles in 1950 to almost twice this distance 20 years later, the highest average length of haul for any commodity moved by rail in the U.S.S.R.

Exports of logs soared from 3 million cubic meters in 1958 to 14.6 million cubic meters in 1971. Exports of lumber, however, grew less rapidly during this period—from 3.6 million cubic meters to 7.9 million cubic meters. Exports of wood products are an important earner of hard currency, with Japan the largest customer for logs, taking 45% of such exports. A substantial increase in timber exports is scheduled during 1969-73 in return for Japanese technical aid in the development of the timber industry in the Soviet Far East.