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THE RECENT RECORD IN SOVIET ECONOMIC GROWTH

CHAPTER IV

B. TRENDS IN THE PRODUCTION OF CONSUMER GOODS

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## TRENDS IN THE SOVIET PRODUCTION OF CONSUMER GOODS

Inogenc Erro

### I. Introduction

Consumer production in the USSR has increased in recent years but not sufficiently to meet the requirements of the population. Under existing priorities for investment funds and other resources, the consumer industries have concentrated on expanding output at the expense of improvements in quality, design, and assortment of goods. Consequently production is now at a level where some choice is possible in consumer buying, although the chronic shortcomings of the industries are being emphasized by customer rejection of merchandise.

The Soviet people, whose comfort and well-being have been sacrificed for the building of heavy industry and military strength now are pressing for a fairer deal in consumer goods. As supplies improve, consumers are becoming increasingly selective, often declining to buy some commodities at all because of poor assortment, absence of proper sizes, low quality of materials, or faulty workmanship. Such complaints thus reflect failures in planning, in production, or in distribution; often the trouble lies in all of these areas. On balance, it appears that the job of producing clothing, footwear, and other consumer items in accordance with demand, and marketing these goods efficiently presents a range of problems that so far the planners -- central, regional, and local -- have not been able to solve.

Khrushchev's position in regard to the allocation of resources for production of consumer goods has been subject to rather drastic

change since his rise to power. Although he denounced initially the pro-consumer policy of Malenkov of 1953-54, supporting instead an overriding priority for heavy industry, Khrushchev later adopted a policy of paying serious attention to living standards. In the summer of 1959, Khrushchev, just home from his first visit to the United States, and obviously impressed by the enormous gap in the levels of consumption in the two countries, altered his earlier position rather sharply and proceeded to initiate in rapid succession a number of official actions designed to improve consumer welfare.

The first decree, issued by the Soviet government in October 1959, called for increases in the production and assortment of a whole range of household goods, from spotting fluids to refrigerators, although the real emphasis was on increasing the production of household appliances. 1/ The decree set new 1961 goals which required annual increases in the production of refrigerators of 30 percent, where the Seven Year Plan implied a 22 percent annual increase. Similarly, output of washing machines was to increase at the rate of 31 percent instead of 28 percent, and vacuum cleaners by 28 percent instead of 19 percent. A textile decree which followed in December provided for a broad program of reconstruction and expansion of textile plants; 2/ it increased the production goals for spinning machines and looms, and called for an acceleration of programs in textile research and designing of machinery. A trade decree was issued in August 1960 to accelerate the already ambitious plans to expand and modernize the retail trade facilities, 3/ a sector where the cash register had hardly begun to replace the abacus. In May of the

following year, 1960, Khrushchev revealed plans to increase investment in light industry,\* to abolish personal income taxes, and to institute certain other welfare measures. The Premier went so far as to suggest that "now that the industrial base of the country is built" light industry and heavy industry could henceforth develop at equal rates. 4/ He pointed out that "Neglect for the material requirements of the working people and the concentration of emphasis on . . . social and moral forms of incentive and reward has retarded development of production and the raising of the living standards of the working people". 5/

Although Khrushchev's pro-consumer attitudes may have been sparked by a glimpse at living conditions within the United States, other reasons for stressing consumer welfare (even in the face of apparently strong opposition at times) are also compelling. Certainly, a rising level of living may tend to increase the people's trust in the leadership, thus lending stability to the political system.

Overriding this consideration, however, are other important factors.

The Soviet leadership, which long has emphasized the importance of increased labor productivity in the "building of socialism and communism," now is trying to achieve more rapid increases in productivity by decreasing idle time, improving production flow,

\* Additional investment funds of 2.5 billion to 3.0 billion rubles were allocated for the development of the textile and footwear industries, for the expansion of the agricultural production of raw materials for these industries, and for production of light industrial machinery. 6/ The share which light industry itself is to receive cannot be determined exactly but probably would increase the investment funds provided by the Seven Year Plan by about one third.

Ruble values in this report are given in new rubles established by the Soviet currency reform of 1 January 1961. Values reported in old rubles were converted to new rubles at a rate of 10 to 1.

introducing more productive machinery, and the like. 7/ But increases in the productivity of labor can also be stimulated by meeting more adequately the workers' desires for consumer goods, balancing the rise in money incomes of the population which have resulted from reforms in prices, wages, and pensions instituted by Khrushchev. However, in June 1962, Moscow sharply increased prices on butter and meat; this was followed in September by the indefinite deferral of the promised abolition of income taxes. Both of these measures would decrease anticipated disposable incomes available for the purchase of non-food consumer goods. 8/

The year 1961 seemed to mark the eclipse of Khrushchev's consumer program. In what was apparently a sincere effort to narrow the gap between consumption in the USSR and Western countries, Khrushchev had been characteristically over-optimistic, and his efforts to improve the consumer's lot have fallen far short of the goal. Although before the 22nd Party Congress, Khrushchev had indicated his desire to equalize the rates of growth of heavy and consumer industries, the decisions of the Congress in October 1961 clearly gave the edge to heavy industry. Thus, by 1980, the "production of the means of production (Group A) was scheduled to rise to a level 6.8 to 7 times that of 1960, while the production of consumer goods (Group B) was scheduled to reach a level only 5 to 5.2 times the 1960 level. 9/ Furthermore, the decisions of the Congress made clear that necessary military expenditures might further limit consumer production if "complications in the international situation" should so demand.

## II. Production Record

### A. General

The Soviet level of living, as indicated by increases in production per capita of basic commodities, has continued to rise slowly but at a rate which is sufficient to achieve neither the goals of the Seven Year Plan nor the levels of consumption set by the "scientific norms" for 1970.\* The following tabulation shows comparisons in production per capita for key commodities -- total textiles (including fabrics of cotton, wool, linen, silk, rayon, and synthetic fibers) and leather footwear:

<u>Unit</u>	<u>a/</u> <u>1955</u>	<u>a/</u> <u>1958</u>	<u>a/</u> <u>1961</u>	<u>a/</u> <u>1965 Plan</u>	<u>Consumption b/</u> <u>Norm</u>
Textiles (sq. meters)	27.4	28.1	29.9	35.2	58.1
Leather footwear (pairs)	1.4	1.7	2.0	2.2	3.5

- a. Derived from Tables 2 and 3 and estimates of population of the US Bureau of the Census, Foreign Manpower Office. Data for 1965 are derived from planned output goals.
- b. Planovoye khozyaystvo no 8, 1960, pp. 51-63.

Khrushchev's goal of surpassing the US in the production of consumer goods by 1970 10/ is also spurious when measured against performance. The following comparisons of basic items of clothing and footwear indicate the degree to which the Soviet Union lags behind the US in production per capita:

\* Soviet planners have set up standards -- so-called scientific norms -- for consumption of basic commodities produced by the light and other consumer industries. But the list of commodities considered "really necessary" is extremely limited by comparison with the wide range of goods available, for example, in the average US department store. Although the Soviet norms for food approach US quantitative consumption levels, norms for textiles and clothing are generally lower. 11/



<u>Commodity</u>	<u>Unit</u>	<u>1961</u>		<u>1965 Plan</u>
		<u>USSR a/</u>	<u>US b/</u>	<u>USSR c/</u>
Cotton fabric	sq. meters	22.4	48.3	24.7
Wool fabric d/	sq. meters	2.1	2.2	2.7
Fabric of rayon, synthetic fiber and silk	sq. meters	3.1	14.8	5.3
Hosiery	pairs	4.6	11.0	5.6
Leather footwear	pairs	2.0	3.3	2.2

- a. Derived from data in Tables 2 and 3 and estimates of the US Bureau of Census, Foreign Manpower Office.
- b. Derived from data in the Statistical Abstract of the United States, 1962. US Bureau of the Census, 1962, pp. 797-803.
- c. Derived from plan data published in Pravda, 8 February 1959.
- d. Soviet wool fabrics may be woven of blended fibers containing as little as 30 percent wool, whereas US wool fabrics must contain 50 percent or more of wool fiber in order to classify as wool. 12/

Although the Soviet leadership has committed itself to providing a more adequate supply of basic consumer commodities such as textiles, clothing, and footwear, it clearly does not intend to emulate Western consumption standards in the broader range of consumer goods. Luxury items are largely excluded from the Soviet plans.

For the period, 1950-60, light industry, according to the Soviet official indexes of production, has grown less rapidly than other important sectors of Soviet industry, particularly heavy industry. The official indexes which are tabulated below show that light industry, while increasing at a substantial rate, has since 1955 begun to lag further behind the machine building and metalworking

industry and also behind industrial production as a whole than it did in the early postwar years.

1950=100 a/			
<u>Years</u>	<u>Light Industry</u>	<u>Machine Building and Metalworking Industry</u>	<u>Total Industry</u>
1950	100	100	100
1955	178	220	185
1958	217	323	249
1959	234	372	277
1960	250	430	300

a. Narodnoye khozyaystvo SSSR v 1960 godu, p. 226.

Computed from these indexes, production of light industry from 1955 through 1960 increased by 40 percent, whereas the total industrial production increased by 62 percent and the machine building and metalworking industry by 95 percent for the same period. The measurements in overall growth, however, only partly indicate the real gap between the consumer industries and the high-priority industries, inasmuch as they ignore relative development of the industries in the base year of the index. In that year, 1950, light industry, having about recovered its prewar level of production was capable of producing fewer goods than were required to fill the basic needs of a large Soviet population. But the industries producing machinery and heavy equipment had developed beyond the prewar production levels and were being given priority for future development.

Since 1959, the first year of the Seven Year Plan, the various branches of Soviet light industry -- textiles, clothing, and

footwear, -- have all registered declining rates of growth (See Table 1). The sharpest decline occurred in 1961, coinciding with a decline in the rate of growth for Soviet industry as a whole after the shift from an 8-hour to a 7-hour workday. <sup>13/</sup> The following tabulation shows the rates of growth achieved in the first three and a half years of the Seven Year Plan, as announced officially, for some of the important branches of Soviet industry in relation to the growth of total industrial production:

<u>Industry</u>	<u>Annual Increase (Percent)</u>			
	<u>1959</u> <sup>a/</sup>	<u>1960</u> <sup>b/</sup>	<u>1961</u> <sup>c/</sup>	<u>Jan-Jun 1962</u> <sup>d/</sup>
Total	11	10	9	10
Machine building and metalworking	15	16	16	15
Chemicals	10	12	14	17
Construction materials	22	18	12	9
Light	9	8	5	4
Food processing	11	4	7	10

a. Pravda, 22 Jan 1960.

b. Pravda, 26 Jan 1961.

c. Pravda, 23 Jan 1962.

d. Pravda, 21 Jul 1962. Percentage increase over Jan-Jun 1961.

Thus, light industry, the food industry, and the industry producing construction materials have been increasing at rates below the 1959 level, while the metalworking industry has maintained its high rate of growth of 15 to 16 percent and the chemical industry has increased in rate of growth from 10 to 17 percent. By mid-1962, industrial output as a whole had recovered the 10 percent rate

Table 1

## Rates of Growth in Soviet Light Industry

Selected Years, 1952-62 and the Seven Year Plan a/

Commodity	Average Annual Increase (Percent)		Annual Increase (Percent)			Average Annual Increase (Percent)	
	1952-1958		1952	1960	1961 Jan thru Jun 1962 b/	1952-1962	Seven Year Plan
Cotton fabric	2.8		7.1	4.8	0.7	2	4.2 e/
Wool fabric	8.1		7.7	5.6	3.9	3	7.4
Fabric of rayon, synthetic fiber, and silk	25.3	d/	decrease	1.9	1.2	8	8.4
Linen fabric	6.3		10.2	6.5	decrease	e/	4.0
Knit outerwear	7.4		6.9	7.4	5.2	6	7.4
Knit underwear	10.5		9.8	7.7	3.3	6	10.0
Hosiery	5.8		4.3	4.1	3.7	n.a.	5.6
Leather footwear	5.9		9.4	7.5	5.5	4	5.4

a. Percentages were derived from data contained in the following sources: data for 1951, Promyshlennost' SSSR, Moscow, 1957, pp. 328, 343, 351; data for 1958-61, SSSR v tsifrakh v 1961 godu, Moscow, 1962, pp. 127, 128; percentages for Jan-Jun 1962 were reported in Pravda, 23 Jul 62; and data for the Seven Year Plan (1959-65), Pravda, 8 Feb 59.

b. Percentage increase over Jan-Jun 1961.

c. Lower limit of the range.

d. Production was 96% of previous year.

e. Production was 98% of previous period.

previously achieved in 1960, but the rate for light industry continued to decline. The 4 percent increase achieved during the first 6 month period of 1962 and the 5 percent achieved in 1961 are well below the 6 percent average increase needed to fulfill the Seven Year Plan, 14/ and are far short of the 7 percent average annual increase achieved during the previous seven-year period, 1952-58.\*

#### B. Textiles

Recent trends in Soviet output of textiles show that fabric production increased at the relatively high rates of 6 percent and 5 percent respectively during 1959 and 1960, but that the rate of growth dropped off sharply in 1961. Increases in the production of fabric for recent years and that planned for 1965 can be seen in the following tabulation:

<u>Year</u>	<u>Production of Fabrics<sup>a/</sup></u> <u>(million square meters)</u>	<u>Index (1958-100)</u>
1955	5,402	93
1958	5,823	100
1959	6,178	106
1960	6,467	111
1961	6,505	112
1965 Plan	8,135	140

a. Figures are from Table 2.

\* The average annual rate of increase for the period 1952-58 was computed from an index of production of finished commodities and weighted by retail prices of 1955. The computed index is slightly lower than the official index of production which is a gross value index in factory prices.

The decline in the rate of growth in the textile industry can be attributed in large part to shortages of raw materials and to other troubles in the industry (See Section III, p. 16). The textile industry still is basically dependent on supplies of agricultural raw materials even though chemical fibers are increasing in the total supply. Shortfalls in agricultural production of fibers are being felt by the industry, as reported by plant managers who complain of lagging supplies. <sup>15/</sup> The shortening of the workday from 8 to 7 hours apparently contributed to the increasing strain on the industry in 1961. In addition to these problems, the textile industry is exhorted by planners, retailers, and consumers alike to broaden the assortment of goods and to raise the quality, the accomplishment of which would tend to slow the rate of growth of the industry but would increase the effectiveness of its output in satisfying consumer demand.

During the period, 1950 through 1961, the total production of textile fabrics in terms of square meters almost doubled, as shown in Table 2. Moreover, marked shifts have occurred during this period in the distribution of textiles according to type, in part an indication of a broader assortment. Cotton fabric, which comprised 84 percent of production in 1950, declined in its share of total fabric to 75 percent by 1961 because of gains in other fabrics, particularly fabrics of rayon and synthetic fibers. Woolen and

Table 2

Soviet Production of Textile Fabrics for Selected Years a/

1950 through 1961 and 1965 Plan

Type	million square meters						
	<u>1950</u> <sup>b/</sup>	<u>1955</u> <sup>b/</sup>	<u>1958</u> <sup>c/</sup>	<u>1959</u> <sup>c/</sup>	<u>1960</u> <sup>c/</sup>	<u>1961</u> <sup>d/</sup>	<u>1965 Plan</u> <sup>e/</sup>
Cotton	2,885	4,370	4,308	4,615	4,838	4,874	5,700
Wool	197	320	385	415	438	455	635
Rayon, synthetic, and silk	106	431	690	663	675	683	1,215
Linen	260	281	440	485	516	493	585
Total	3,448	5,402	5,823	6,178	6,467	6,505	8,135

- a. Production of fabrics in 1950 and 1955 were converted from linear to square meters using the following coefficients: cotton 0.74; wool 1.27, rayon, synthetic, and silk 0.82; and linen 0.92. These coefficients, derived from official data for 1958 which were reported in both linear and square meters, in Narodnoye khozyaystvo SSSR v 1959 godu, p. 245, do not account for possible changes in the widths of fabrics during the earlier period, but such changes if they occurred were probably small.
- b. Narodnoye khozyaystvo SSSR v 1960 godu, p. 321.
- c. Ibid.
- d. SSSR v tsifrakh v 1961 godu, p. 127
- e. Pravda, 8 Feb 1959.

linen fabrics made nominal gains.\* Table 2 shows the production of the major groups of textiles since 1950 and goals for the Seven Year Plan.

In both quantity and quality, the Soviet Union still has far to go to reach production levels of textiles in the United States. Total Soviet production of textiles (measured in square meters) in 1961 was only a little more than half the American volume\*\*, a level that is not adequate to supply -- at anything approaching the consumption standards of many Western countries -- the needs of a population more than 18 percent larger than that of the United States.

Some of the factors that contribute to the relatively poor quality of Soviet textiles, can be enumerated. Fabrics generally are lighter in weight and narrower than those produced in Western countries. Thread counts are lower, and yarns receive less twist. The numerous irregularities found in yarns and fabrics result from the use of raw materials of low quality and from a lack of precision in the spinning and weaving processes. A group of US specialists

\* Changes in the percentage distribution of fabrics according to type were as follows (based on data in Table 2).

<u>Type of Fabric</u>	<u>1950</u>	<u>1961</u>
Cotton	83.7	74.9
Wool	5.7	7.0
Rayon, synthetic, and silk	3.1	10.5
Linen	7.5	7.6

\*\* In 1961 Soviet production of fabrics was 6,505 million square meters (See Table 2) whereas the US production was equivalent to 12,100 million square meters. 16/



visiting the Soviet cotton textile industry in 1959 reported on quality as follows: 17/

Mills are somewhat concerned about the quality of the raw cotton they get, but they have to use what is furnished and turn out as good a product in maximum quantity as they can. Since they have little responsibility for the product after it leaves the plant, they have no strong incentive to be concerned about anything more than meeting minimum standards.

C. Clothing and Footwear

Much greater amounts of clothing and footwear have been reaching the Soviet consumer in recent years than in the earlier years of the post-World War II period. The amount of sewn garments distributed annually through the retail stores in 1960 had more than tripled the 1950 level and was almost 80 percent above the 1955 level.\* Sales of fabrics, on the other hand, have increased much less rapidly -- only 31 percent since 1955 -- reflecting a trend away from home-sewing and in favor of factory-made clothing. Sales of these commodities in the state and cooperative stores in recent years were as follows: (million rubles)

<u>Commodity</u>	<u>1950</u> <sup>a/</sup>	<u>1955</u> <sup>b/</sup>	<u>1958</u> <sup>b/</sup>	<u>1960</u> <sup>b/</sup>
Sewn garments	2,172	3,939	5,582	7,051
Fabrics <u>c/</u>	3,950	4,566	5,619	5,982

a. Narodnoye khozyaystvo SSSR v 1958 godu, p. 724. For 1950 only, sewn garments include fur goods.

b. Narodnoye khozyaystvo SSSR v 1960 godu, p. 690.

c. Most of the fabrics sold in retail stores probably are sewn into clothing either at home or by private tailors or seamstresses.

\* Production data for the garment industry is incomplete. When it is reported, production of sewn garments is based on value added which excludes the cost of materials. Before 1959 sewn garments were reported as gross value of production. 18/ The data for retail sales provides a more continuous series which may be more meaningful for making comparisons.

Soviet-made clothing is notoriously shoddy, reflecting the poor quality of materials and workmanship and the inexperience of the designers. Much of the factory-made clothing, according to trade officials, is unsalable due to "low grade sewing, poor finishing, and simplified, old-fashioned, and unvaried styling . . . with serious defects". 19/ During a 9-month period in 1961, the Ministry of Trade, RSFSR, rejected 41 percent of the production of the garment industry, reclassifying the goods as seconds. 20/ In the knitting trades, output of hosiery has doubled since 1950, and knit outerwear and underwear have increased even more rapidly, albeit over a relatively small base. (See Table 3)

Although production of leather footwear has more than doubled since 1950, neither the quality of materials and workmanship nor the assortment have improved appreciably. In order to meet production quotas, footwear manufacturers produce somewhat standardized models in a narrow range of sizes as a means of achieving production goals. Customer complaints concern shortages of particular sizes and the generally cheap quality that means ultimately a lack of durability. As for materials, artificial suede and other simulated leathers which are used to extend the supplies of genuine leather are far less durable materials, although composition soles probably are an acceptable substitute for leather. A further lack of durability results from construction methods that often either are outmoded or are geared to maximum output rather than to producing a high-quality product.

Table 3

## Soviet Production of Knitted Garments and Leather Footwear

Selected Years 1950-61 and 1965 Plan

<u>Commodity</u>	<u>million pieces or million pairs</u>						
	<u>1950</u> <sup>a/</sup>	<u>1955</u> <sup>b/</sup>	<u>1958</u> <sup>b/</sup>	<u>1959</u> <sup>b/</sup>	<u>1960</u> <sup>b/</sup>	<u>1961</u> <sup>b/</sup>	<u>1965 Plan</u> <sup>c/</sup>
Leather footwear	203	271	356	390	419	442	515
Knit outerwear	47	85	97	104	112	117	160
Knit underwear	150	346	399	439	472	488	780
Hosiery	473	772	888	926	964	1,000	1,300

a. Promyshlennost' SSSR, Moscow, 1957, pp. 343, 351.b. SSSR v tsifrakh v 1961 godu, pp. 127, 128.c. Pravda, 8 Feb 1959.

D. Consumer Durables

The production of consumer durables is increasing rapidly, although the output is still small for household appliances except for sewing machines and radios. Household refrigerators, washing machines, and television sets which have come into production in large numbers only since 1950, are scheduled for rapid increases in the Seven Year Plan (See Table 4). Many other appliances that are common in the US -- such as dishwashers, clothes dryers, and food freezers -- are virtually unknown to the Soviet public.

Stocks of household appliances by the end of the Seven Year Plan in 1965, according to Soviet estimates, will include 7.6 million refrigerators, 12.3 million washing machines, and 40 million sewing machines. 21/ If these levels are reached by 1965, Soviet officials estimate that there will be one refrigerator for every five urban households, one washing machine for every three urban households, and one sewing machine for every two households (both urban and rural). Although this inventory compares unfavorably with present US inventories, it approaches the current level of availability of these appliances in the UK and some of the other European countries. 22/ Radios, because of their value as means of propaganda dissemination, enjoy a relatively high priority in consumer production and are priced fairly cheaply. Stocks of radios, according to official Soviet estimates had grown by 1960 to a level which provided 48 sets per 100 families. Stocks of television sets provided only 10 per 100 families. 23/

Table 4  
Soviet Production of Consumer Durables  
Selected Years 1955-61 and 1965 Plan

<u>Commodity</u>	thousands						
	<u>1950</u> <sup>a/</sup>	<u>1955</u> <sup>a/</sup>	<u>1958</u> <sup>b/</sup>	<u>1959</u> <sup>b/</sup>	<u>1960</u> <sup>b/</sup>	<u>1961</u> <sup>b/</sup>	<u>1965 Plan</u> <sup>c/</sup>
Sewing machines	502	1,611	2,686	2,941	3,096	3,292	4,550
Refrigerators	1.2	151	360	426	530	686	1,450
Washing machines	0.3	87	464	648	896	1,286	2,570
Radios	1,072	3,549	3,902	4,035	4,165	4,229	6,000
Television sets	12	495	979	1,277	1,726	1,949	3,300

- a. Narodnoye khozyaystvo SSSR v 1958 godu, pp. 298-300.  
b. SSSR tsifrakh v 1961 godu, p. 128.  
c. Pravda, 8 Feb 1959.

Although consumers in the USSR are anxious to own appliances and other durable goods, they usually must wait many months for delivery and are often dissatisfied when they finally obtain them. Few of these items would be salable in retail markets in the United States.

Appliances on the whole are poorly designed, crudely built, and subject to breakdowns. Soviet refrigerators have a small amount of usable space in relation to their size and weight. The washing machines are simple in design usually with roller wringers operated by hand; some have motor driven centrifugal spinners; and a small part of the production have simple timing devices. Electric sewing machines have been so unreliable that many housewives are returning to treadle machines while a good portion of the newer models rust in warehouses. 24/ Even in the urban areas the usefulness of appliances is limited by the undependable nature of the Soviet supplies of electric power.\*

Both the availability and quality of Soviet appliances have been influenced adversely by the preoccupation of planners with heavy industry. Instead of plants which specialize in appliances, production has been relegated to subsidiary shops of plants that specialize in other types of machinery. Production is poorly organized, there is little coordination among producers, and inadequate

\* Problems of erratic flow of current and fluctuations in voltage which have been reported result in part from inadequate wiring and improper distribution of current. More than 800,000 voltage stabilizers for use in operating home appliances were bought during 1959 alone. 25/

specialization has led to high costs. Until these deficiencies are rectified, Soviet consumers will find that household appliances, on the whole, are scarce, expensive, and of poor quality.

### III. Current Growth Problems and Prospects

Strains now being felt by the consumer industries apparently are caused by factors which are numerous and complex. The sharp decline in the rates of growth of the textile, clothing, and footwear industries in 1961 coincided with the period following the shortening of the work day from 8 to 7 hours, but other factors including shortages of raw materials, and failures in investment also contributed to the decline. How great has been the effect relatively of each of these factors cannot be determined, but collectively they are probably responsible for the lower rate of growth.

#### A. Materials Shortages

Providing increasing quantities of raw materials is one of the major factors limiting the growth of light industrial production at present and in future years. Judging from past experience in production of textile fibers by Soviet agriculture, fulfillment of plans is likely to fall short of the Seven Year Plan goals. Moreover, even if goals are reached the output of natural fibers will barely support the planned increase in textile fabrics. For example, the Seven Year Plan requires that production of cotton fabric increase at an annual rate of 4.2 to 4.7 percent, whereas the plan for output of cotton fibers requires an increase of 3.8 to 4.9 percent. 26/ Soviet planners do recognize that Soviet agriculture can no longer, as it has in the past, supply fibers in adequate quantities to support the planned

expansion of the textile production. Thus future goals for textiles are based on the assumption that rayon and synthetic fibers can be produced in quantities adequate to supply the requirements of the industry over and above that which agriculture can produce. Production of rayon and synthetic fibers is scheduled to grow at the rate of 22 percent annually during the Seven Year Plan. 27/ Woolen plants in particular are to rely on large quantities of synthetic fibers, and cotton mills are to use synthetic fibers suitable for blending.

Production of agricultural textile fibers in recent years has been slowing down; plans frequently are underfulfilled, particularly in years of adverse weather conditions. The following tabulation of production of textile fibers shows the output of cotton in 1960 and 1961 was lower than the level achieved in 1959; annual increases in wool have declined for the past three years; and production of flax fiber fluctuates from year to year.

thousand metric tons a/				
Year	Cotton (Ginned) b/	Wool (Grease)	Rayon & Synthetic	Flax fibers
1955	1,290	256	110	381
1958	1,450	322	166	438
1959	1,550	356	180	364
1960	1,430	357	211	425
1961	1,510	367	250	403

a. SSSR v tsifrakh, 1961, passim.

b. Converted from the weight of seed cotton at 33.3 percent



Although no figures are available currently on supplies of textile fibers reaching the textile mills, shortages of raw materials reportedly are responsible for production failures in some areas in 1961 and 1962. 28/ Even so, the USSR exports large amounts of cotton, mainly to the East European satellites, an export volume which varies between 20 and 25 percent of Soviet domestic production each year.

Although increasing requirements at home appear to strain the ability of the USSR to continue such extensive export, these commitments appear fairly rigid as indicated by the export pattern of the past 10 years. 29/ Cotton imports on the other hand have increased somewhat in response to growing demands of Soviet light industry, but exports still are far greater -- actually twice the size of imports in 1960. 30/ Wool is also in short supply because of failures in domestic production. Soviet production of wool in 1960 and 1961 increased by 1 percent and 3 percent respectively, compared with an increase of 12 percent in 1959. (See tabulation above).

The fulfillment of future goals for light industry thus depends in large part on a lagging agricultural sector for supplying increases in natural fibers and on a heavily burdened chemical industry for supplying rayon and synthetic fibers.\* Should agriculture and the chemical industry fail to meet the requirements of light industry, the official

\* A sharp reduction in the growth rate for rayon and synthetic fibers was announced for 1962 -- from 20 percent implied by the Seven Year Plan to 12 percent. 31/

program for increasing the supplies of textiles and clothing to Soviet consumers would be placed in serious jeopardy. In this event, Soviet planners would have to look abroad for large quantities of textile fibers with which to supplement domestic supplies.

#### B. Low Level of Technology

The low level of technology which characterizes much of Soviet light industry can be attributed in large part to the fact that, in the allocation of investment funds and resources, light industry has been given a low priority. The Seven Year Plan provided some improvement in the allocation of funds for light industry relative to other main branches of industry (See III C below), yet this higher level of investment apparently is not great enough to constitute a significant rise on the priority scale. Allocations of funds for the Seven Year Plan period and the preceeding 7-year period for the light and food industries are compared with allocations for other selected industries as follows:

a/ Branch of industry	1952-1958 (billion rubles)	b/ 1959-1965 (billion rubles)	b/ 1959-1965 in percent of 1952-1958
Light and food	4.0	8.0-8.5	200-212
Machine building	6.6	11.8	180
Ferrous metallurgy	4.1	10.0	245
Oil and gas	7.2	17.0-17.3	235-240

a. US Joint Publications Research Service: JPRS: 14,600 Capital Construction: A Statistical Collection, 26 Jul 1962, p. 48.

b. In prices of 1 Jul 1955 adjusted to the new 1961 rate of exchange.

Thus, the share in investments of the light and food industries (representing personal consumption) is less for both the 7-year periods than the shares respectively of the machine building, ferrous metallurgical, and oil and gas industries, and the increase in the Seven Year Plan for the light and food industries is less than that in two of the heavy industries enumerated.

Because light industry has been starved for resources over the years, technological improvements have been slow to develop and as a result, labor is used extensively, including much hand labor. The number of industrial workers in Soviet light industry\* ranks high in the total of industrial workers for all of Soviet industry, being exceeded only by the number of workers in the machine building and metalworking industry. Of the 18.6 million production workers (rabochiy) in Soviet industry in 1960, light industry employed 3.4 million, or 18 percent. 32/

Even in the textile industry, which is more advanced in the mechanization of processes than are the clothing and footwear industries, much larger numbers of workers on the whole are used for given operations than in US textile industry. The size of the industrial labor force for textiles in the USSR is far greater than that of the US textile industry, but the Soviet output of textiles is only about half as great. Ratios for the two

\* Production workers (rabochiy) employed in Soviet light industry in recent years were as follows:

(thousands)

1955	2,158
1958	2,515
1959	2,579
1960	3,371

The increase of 792,000 workers in 1960 over 1959 reflects mainly the integration of the producer cooperatives into the state industrial system. Source: Narodnoye khozyaystvo 1960 godu, p. 217.

countries have been reported by the Soviet writer, S. A. Kheyman, for cotton fabric in 1958 showing Soviet production at 56 percent of US production, but the Soviet labor force reportedly was 87 percent greater than its US counterpart. 33/

Measurements of labor productivity in the various branches of light industry are difficult to make because of the lack of data; figures on the Soviet industrial labor force, in particular, are scarce. However, some comparative research in labor productivity has been made by both Soviet and US writers. A comparison of the productivity of labor in the USSR and the US has been made by the Soviet writer, A. Kats, which shows that the Soviet output per production worker in the textile and footwear industries, ranged from 38 to 44 percent of output per production worker in the US, when comparing US ratios for 1956 with Soviet ratios for 1957. Data from the Kats study are as follows:

Branch of Industry	a/ Unit of Measure	Output per Worker		USSR in percent of US
		US (1956)	USSR (1957)	
Cotton fabric	linear meters	20,052	7,712	38.5
Fabrics of rayon, synthetic fiber, and silk	linear meters	19,668	7,512	41.5 <sup>b/</sup>
Wool fabric	linear meters	3,411	1,443	42.3
Footwear	pairs	2,527	1,112	44.0

a. V. A. Zhamina, Edr., Ekonomicheskoye sorevnovaniye sotsializma c kapitalizmom, 1962, p. 200.

b. As reported in the source. Using the data for output per worker as presented in the source actually yields 38.2 percent.

The ratios obtained by Kats, however, are high when compared with results obtained by Western researchers. To the advantage of Soviet statistics, the Kats ratios are based on output of fabric in linear meters which ignore the fact that the US fabrics are wider than Soviet fabrics in all cases. Thus, comparatively, the US output per production worker is understated for each of the various fabrics. The measurements made by Gertrude Schroeder for 1956\* based on output of fabrics in square meters shows Soviet output per worker much lower than the Kats figures. For example, the Schroeder comparisons show Soviet output of cotton fabric per worker to be as low as 23 percent of the US output as against 38 percent derived by Kats. Similarly, the ratio for rayon, synthetic, and silk fabrics was 27 percent compared with 42 percent derived by Kats. In spite of the wide variation, however, the low output per Soviet worker shown by both of these measurements, reflects the large inputs of labor and the relatively low level of technology of Soviet light industry.

\* The output per production worker in the USSR and the US were reported as follows: (1956)

<u>Commodity</u>	<u>Unit</u>	<u>US</u>	<u>USSR</u>	<u>Ratio</u> <u>(US=100)</u>
Cotton fabric	square meters	24,838	5,798	23
Rayon, synthetic and silk fabric	square meters	22,524	6,164	27
Wool fabric	square meters	4,377	1,815	41
Footwear (except rubber)	pairs	2,672	1,046	39

Source: Gertrude Schroeder, "Some Measurement Problems in Comparing U.S. and USSR Industrial Labor Productivity". Paper presented at the International Conference on Labor Productivity, Lake Como, Italy, 1961.

Recognizing the general backwardness of their consumer industries, Soviet officials aspire to emulate the technological level of the more advanced consumer industries abroad, mainly that in the United States. Procurement of textile plants and machinery from Western manufacturers plays a major role in expanding the capacity of the Soviet consumer industry, particularly the textile industry, and has the added advantage of contributing to the technological advancement of the industry as well. Furthermore, the purchase of machinery abroad lessens the pressure on the machine building plants at home and at the same time saves costly research and designing time by making possible the outright copying of the most advanced models produced by Western industry.

Although Soviet purchasing officials have indicated a strong interest in and preference for US textile processes, mainly those using synthetic fibers, they also are purchasing textile machinery from firms in West Germany, the UK, Italy, and Japan, in addition to that imported from the East European satellites. Imports of machinery for light industry, largely textile machinery and equipment, has increased rapidly in recent years, the total in 1961 reaching 57 million rubles as compared with 20 million rubles in 1958. 34/ By contrast, the USSR appears generally less interested in importing technology and equipment for other branches of light industry, such as the garment knitwear, and footwear branches that in general are even more backward than is the textile branch. Planned improvement in the technology for light industry thus is centered primarily in the spinning and weaving of textiles.



## C. Investment of Capital

### 1. Plans and Performance

Larger amounts of investment funds have been allocated to Soviet light industry for the construction of new plants, the expansion of existing plants, and for modernization and re-equipment than have been invested during earlier plans. Investment in state-owned enterprises of light industry, as originally announced in the Seven Year Plan, totaled 3.3 billion rubles\* or 2.6 times the investment of the preceding 7-year plan (See Table 5). Still this allocation of funds apparently was not sufficient to support the expansion program scheduled for light industry. In 1960 Khrushchev called for additional investment funds of 2.5/ to 3.0 billion rubles to be allocated, not to light industry alone, but "for the development of the textile and footwear industries, (and) their bases for raw materials and machinery construction . . . 35/ The division of this investment among the various industries -- light industry, agriculture, and the chemical and machine building industries -- was not announced but directly or indirectly, light industry will profit from all these investments.

\* In prices of 1 July 1955 adjusted to the new 1961 rate of exchange.

The producer cooperatives were still operating outside of state industry when the Seven Year Plan began and thus their investment plans are not reflected in the original plans for investment in light industry. By the end of 1960, the cooperatives had been integrated into the state system, presumably adding their small share of funds to the investment funds allotted to light industry. 36/

Table 5  
Capital Investment in Soviet Light Industry

	1952-58 and 1959-65		Ratio of Planned Investment 1959-65 to Actual Investment 1952-58
	Million Rubles a/ Actual Investment 1952-58	Planned Investment 1959-65	
Total light industry b/	1,260	3,300 c/	2.6 to 1
Textiles d/	900	2,500	2.8 to 1
Cotton	385	780	2.0 to 1
Rayon, synthetic and silk	74	710	9.6 to 1
Wool	131	385	2.9 to 1
Other textiles e/	310	625	2.0 to 1
Knitwear and hosiery d/	53	185	3.5 to 1
Sewn garments f/	89	178	2.0 to 1
Leather footwear e/	218	437	2.0 to 1

- a. In prices of 1 July 1955 adjusted to the new 1961 rate of exchange.  
b. Tekstil'naya promyshlennost' no 1, 1959, p 9.  
c. As originally announced. Investment subsequently has been increased.  
d. Promyshlennoye stroitel'stvo, no 9, 1959, pp. 2, 3.  
e. Residual.  
f. Estimate based on information contained in shveyznaya promyshlennost', no 6, 1959, p. 3.



The 1961 investment plan which provided the spectacular increase of 54 percent (reflecting both the new allocations of funds and the transfer of investments from the cooperatives) was under-fulfilled, according to official reports, and an increase of only 18 percent achieved over the previous year. The planned increase of 33.5 percent for 1962 37/ does not appear to be especially high considering the need to make up for the investment failures in 1961.

Because of failures in bringing new plants into production on schedule, a re-evaluation of the construction program <sup>as early as</sup> was undertaken <sup>in</sup> 1960. The number of new textile plants scheduled for construction were reduced and emphasis shifted to the expansion of existing plants and to modernization of machinery and production processes.\* For example, new textile plants originally planned for construction in 1960 were reduced from 38 to only 15. 38/ The rising cost of expanding the capacity for production is most pronounced in the construction of complete new plants (as opposed to modernization) where the costs of building and ancillary facilities are added to those of machinery and equipment.

## 2. The Rising Cost of Expansion

According to official planning figures, light industry is becoming more capital-intensive. A reflection of the cost of expanding the industry is seen in a shift in the marginal capital-output ratio. For the Seven Year Plan in relation to the preceding

\* Industry officials note that reconstruction of plants in light industry takes one-fourth to one third the investment of capital as does the construction of new plants, for equivalent increases in output. 39/

7-year period, the marginal capital-output ratio, derived from Soviet over-all plans for light industry is calculated from official data as 0.40 in contrast to 0.16 for the earlier period, as shown in the following tabulation:

<u>Period</u>	<u>Increments to Production</u> <sup>a/</sup> <u>(Billion Rubles b/)</u>	<u>Capital Investment</u> <sup>a/</sup> <u>(Billion Rubles b/)</u>	<u>Ratio</u> <sup>c/</sup>
1952-58	7.64	1.26	0.16
1959-65 (planned)	8.33	3.30	0.40

- a. Tekstil'naya promyshlennost', No. 1, Jan 1959, pp. 2, 3.  
b. In prices of 1 July 1955 adjusted to the new 1961 rate of exchange.  
c. Derived:

Although the ratio for light industry as a whole for the Seven Year Plan is more than double that for the earlier period, ratios for individual commodities would probably vary considerably. For example, in cotton textile production the change would probably not be as great as in a new and expanding area such as the processing of synthetic fiber into yarns, knitgoods, and fabrics. Thus, the relatively high ratio of capital to output reflects the changing technology in textile processes, the substitution of capital for labor, and, in part, the lag between new investment and the resulting gain in output, rather than a definite decline in the marginal productivity of capital. In this branch of industry, major increments to production may be forthcoming in subsequent periods beyond the Seven Year Plan.

D. Planning and Administrative Weaknesses

Centralized planning for consumer needs, as it exists in the USSR, has been established in a climate of scarcity; whether such planning can work efficiently where the supply of goods permits a greater degree of consumer choice is yet to be proven. So far there is little evidence that Soviet planning can cope effectively with the problems of growing consumer requirements without broad revisions of present practices in production and supply.

Inventories of consumer goods at the production plants and in the trade network have increased rapidly, almost doubling in the period 1955-1960. Stocks of wool fabric, sewn garments, and leather footwear have grown at particularly rapid rate during this period, although stocks of cotton fabric have grown very little, a development which suggests that cotton may be more acceptable in quality or price, or both, than some of the other commodities. The following tabulation shows the growth of stocks in wholesale trade organizations and in industry for important consumer items in recent years: (in million rubles)

<u>Commodity a/</u>	<u>1955</u>	<u>1958</u>	<u>1960</u>
Cotton fabric	271	267	282
Wool fabric	151	185	289
Silk fabric	154	223	274
Sewn goods	84	155	324
Leather footwear	96	106	214

a. Narodnoye khozyaystvo v SSSR v 1960 godu, p. 699.

Although recent organizational changes in planning and administration of light industry have improved its operation, many problems remain. Through the decentralization of Soviet industry in 1957, the planning functions of the Ministry of Trade for light industry were transferred chiefly to union and republic planning bodies (gosplans)\*, while the regional sovnarkhozes took over the administration of the industry and assumed only limited planning functions. 40/ Later, in 1960, the producer cooperatives (collective groups of artisans and handicrafters) operating outside of state industry were placed under the administration of the local sovnarkhozes, a move which further increased state control over consumer production. 41/

Such administrative changes, while improving the direction of the industry added other problems, particularly in coordination. Production goals and allocations of materials, in large part, are controlled at union and republic levels, whereas the administration and management are mainly the responsibility of the sovnarkhozes. In practice, plant managers claim, the USSR Gosplan sets up the aggregate goals for production taking no account of the increased cost of changing the assortment, such as providing more working capital, labor, and the like. Thus, plant managers who vary the assortment in response to orders from the trade organizations may run the risk of failing to meet over-all plan goals. Because of

\* Except for long-term planning which in April 1960 was transferred from Gosplan, USSR, to the State Scientific Economic Council (Goskhozmsvet), USSR. 42/

this, plants tend to narrow rather than to broaden the assortment of goods produced.

The distribution system for consumer goods in the USSR is notoriously inefficient because of the inadequacy of funds, lack of modern merchandising equipment, and because of organizational weaknesses. Consumers are accustomed, but not necessarily reconciled, to alternating gluts and scarcities of goods. In recent years a number of changes have been introduced in planning and administration, particularly in the state trade system, in order to meet more effectively the requirements of consumers.

Since 1957, details of assortment, design, and quality have been worked out by sovmarkhoz officials, and factory managers, working with the trade representatives. <sup>43/</sup> Orders for goods by wholesale and retail organizations on contract include detailed specifications as to the kinds of goods and the delivery dates. While individual store managers have thus gained some voice in determining the kinds of goods they will carry on their shelves, strict observance of contract terms often increases the burden of the producers.

While the assortment of goods is planned regionally or locally, the aggregate goals and the allocations of materials to be used are planned centrally. Plant managers, thus are obliged to meet output levels set by Gosplan (with penalties for failure) while at the working level they are at the mercy of the trading organizations who place orders, but who also can change these orders according to

need, and ultimately to reject the goods if they fail to meet specifications. 44/ Such a multiplicity of organizational authority -- interdependent, over-lapping, and tangled in detail -- presents a range of problems of coordination which planners have been unable to solve in the past and which may be expected to increase in intensity as the assortment of commodities expands.

#### IV. Summary

In the USSR, which now ranks as a <sup>leading</sup> world power, the consumers' share in the total product of industry is still too small to satisfy their basic requirements, in spite of the gradual rise in the level of living that has been achieved. Under the existing system of priorities for investment funds and other resources since 1950, light industry has grown more slowly than total industry and slower still compared with the machine building branch of heavy industry. Nevertheless, by 1960, light industrial production had grown to 2.5 times the level in 1950, almost doubling the output of textiles, more than doubling the output of leather footwear and hosiery, and increasing at an even faster rate the output of knitwear and sewn garments. Still these goods was far from adequate when measured either by consumer satisfaction or by the official standards for optimum consumption.

Presently light industry, growing at a rate below that needed to reach the 1965 goal, is producing half the textiles and only a little more than half of leather footwear needed to reach the norms which Khrushchev has pledged to achieve by 1970. Even the production required by the Seven Year Plan, should it be reached, is still far short of supplying the prescribed norms as shown by the following data per capita.

	<u>1961</u>	<u>1965 Plan</u>	<u>Consumption Norm</u>
Textiles (square meters)	29.9	35.2	58.1
Leather footwear (pairs)	2.0	2.2	3.5



As for apparel, Soviet consumers are receiving much more factory-made clothing than they did in earlier years. Retail sales of sewn garments in 1960 were / almost 80 percent above the 1955 level, whereas, sales of fabrics in that period increased only 30 percent, indicating that as the supply of factory-made clothing increases, the need for sewing at home and by private seamstresses and tailors is diminishing.

Besides the radios and sewing machines which are fairly common throughout the USSR, many urban householders in recent years have acquired their own television sets, refrigerators, and washing machines. However, the appliances are of poor design, low quality of construction, and undependable operation to the extent that many of them would not be salable in Western markets. By 1965 Soviet officials estimate that for each 5 urban households / there will be one refrigerator; for each 3 urban households, one washing machine; and of all Soviet households, urban and rural, half will have sewing machines. Few plants specialize in household appliances, production being relegated instead to subsidiary shops of machine building plants that specialize in other types of machinery.

Soviet light industry recently has suffered a decline in rate of growth, falling from an increase of 9 percent in 1959 to an increase of 4 percent during the first 6 months of 1962 over the corresponding period in 1961. The present rate of growth thus is below the 6 percent average annual increase required to meet the 1965 goal and is also below the 7 percent achieved annually in the preceeding 7-year period. Contributing heavily to the decline in rate of growth are shortages of raw materials and failures in achieving the investment plans.



That Soviet agriculture may be unable adequately to meet the requirements of the textile industry in the future is a probability which planning officials apparently accept. The output of agricultural fibers recently has increased at a declining rate, increases for both cotton and wool falling in 1960 and 1961 far below the increase achieved in 1959. Light industry thus must rely more heavily on the non-agricultural types of textile fibers -- rayon and the various types of synthetic fibers which are now being developed.

The low technological level at which Soviet light industry operates is reflected by high inputs of labor and a relatively low investment of capital. Light industry's share of investment, even when combined with the food industry, is still below the shares respectively of the machine building, ferrous metallurgical, and oil and gas industries for both the Seven Year Plan and the 7-year period preceeding it. Because of its technological lag, the Soviet light industry compares poorly with that in the US, the annual output per Soviet production unit amounting to less than half of that of his US counterpart. To help in raising the level of technology, the USSR is importing modern machinery and equipment from firms in Western countries -- mainly the US, the UK, West Germany, and others -- as well as from the East European satellites.

On balance, the Soviet consumers' lot has improved gradually over time, but the prospects are that future gains also will be gradual in spite of the growing desires of consumers for more and better goods. Soviet light industry, which continues to build gradually on

achievements of past years, is becoming increasingly burdened with problems of expansion. To increase the capacity for production and to provide enough raw materials to support it, is the task of the present and of the future.

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