

STAT

Textile Industry

German book, Die Textil-Industrie Sudest Europas

STAT

THE DEVELOPMENT OF THE TEXTILE INDUSTRY

For historical and geographical reasons, Hungary occupies a unique position between Central and Southeast Europe; this fact is manifest in its important industry -- even capable of export -- which developed despite the agricultural character of this country. Under the Austro-Hungarian Monarchy it was Hungary which delivered agricultural products. Even in those early days the tendency prevailed to develop industry as a means of improving its living standards and obtaining economic independence. As far as textiles were concerned, it was the Austrian industry which supplied the Hungarian market, and almost exclusively with inexpensive dry goods. Hungary, however, was favored only by direct Government subsidies which were given in the form of various statutes promoting the industry. The first promotional statute of the year 1881 resulted in the fact that in 1906 20 percent of the textiles were produced by the country itself. Great fluctuations ranged within the various commodities; the linen, hemp and jute industries, for instance, supplied the country with 65 percent of its needs. (See manuscript No 3). With the Austro-Hungarian tariff agreement still in effect, in 1907 a second statute was established applying only to domestic measures, which were limited. A significant change made itself felt only after World War I. Due to reduction in territory, the proportion between supply and demand improved, particularly because the major portion of its textile industry was located in the portion remaining with Hungary and only few categories of any importance remained in the ceded territory. A decisive factor was the fact

that the curbing of effective protection against the tremendous competition in the textile industry in the previously joint tariff area was now eliminated. This meant for the Hungarian Government the opening of a lucrative market granted by protective tariff and import restrictions. Experience in the textile industry dating back many years, availability of skilled labor in great numbers, and the measures protecting this industry stimulated the investment of necessary funds. Contrary to other countries of Southeastern Europe little foreign capital was invested due to a lack in mutual political interest. (Non-aryans circles, however, took part in the foregoing to a great extent, which is evidenced by the fact that up to 50 percent of the executive positions in the textile industry were held by non-aryans).

As a result of assistance by the government within 10 years the Hungarian textile industry was so highly developed that this industry reached the same output as other countries, with which it was able to compete even before the outbreak of the crisis; this coincided with a moment when the world market could easily absorb this product and its prices enabled even new enterprises to establish themselves in this industry. (Compare manuscript No 4).

After the outbreak of the crisis the development continued, protected by a third Law for industrial promotion. The foreign exchange situation was very influential in forcing Hungary to limit incoming foreign exchange, and the drop in prices reduced export commodities to only vital goods; for the textile industry this meant raw material instead of processed or partially processed

goods. Thus any sizeable export and import was at this time made impossible; Hungarian export, however, increased gradually [sic]. The development of the industry leads, above all, to an increasing supply of domestic needs. While during 1921, 16,000 workers were employed at 125 plants, during 1939, 376 plants employed about 75,000 workers, one-third of whom worked in Budapest and its outskirts. According to latest statistics, about one-fifth of all industrial workers and about 6 percent of all skilled labor are working in the textile industry; its total output amounts to about 15 percent of the combined output value of all Hungarian industry.

GROWTH OF EMPLOYMENT IN THE HUNGARIAN TEXTILE INDUSTRY

<u>Year</u>	<u>1929</u>	<u>100 percent</u>	<u>Year</u>	<u>1929</u>	<u>100 percent</u>
1925		66.2	1937		193.4
1929		100.0	1938		160.8
1932		104.6	1939		216.1
1936		178.9	1940		218.2

A survey of available machines, which have in part increased ten times, will illustrate even better the development of the textile industry.

A comparison of labor and equipment will show that employment did not increase at the same rate as production. This was caused by modernizing and streamlining of plants and the conversion of plants to large scale and mass production. The value

of the Hungarian textile industry's output increased considerably even before the outbreak of the crisis. The 25 percent drop in production expressed in monetary value during the economic crisis is born out by a drop in prices, from which all textiles suffered at the time, rather than in a production slump, i.e., fewer employment opportunities. The increase setting in in 1932 coincided with an upward trend in prices; this increase may also be attributed to some extent to increased production which will be discussed later. The increased demand for raw material is on the same level with the value of production. The increasing margin between consumption of raw materials and the production value indicates, if conclusions can be drawn based on calculations as approximate as these, that the industry was turning out goods of increasingly better quality.

EQUIPPING THE HUNGARIAN TEXTILE INDUSTRY WITH MACHINES

(The knitting and woven goods industry must be added here, while the cotton and wool industries are in third place)

Kind of Machines	1914, Old Hungary	1921	1929	1933	1936	1937	1939	1940
Cotton spindles, with- out thread spindles	278,000	33,000	196,000	272,000	311,000	316,500	334,760	340,800
Looms	8,000	4,100	12,000	12,500	13,500	13,500	14,000	14,500
Wool spindles	51,200	5,800	50,000	55,000	70,000	75,000	88,000	102,800
Wool looms	1,865	370	1,800	1,850	2,000	2,000	2,200	2,200
Flax spindles	17,500	10,000	20,700	20,000	20,000	20,000	20,000	20,000
Hemp spindles	5,500	1,500	5,500	6,180	6,180	6,180	7,080	7,080
Linen and Hemp looms	1,890	600	1,320	1,393	1,393	1,393	--	1,720
Jute spindles	19,000	10,000	11,000	11,040	11,040	11,040	12,000	12,000
Jute looms	1,015	565	881	881	881	881	--	925
Silk reels	1,174	456	456	456	456	456	--	456
Silk looms	500	550	1,240	1,720	2,000	2,400	2,400	2,400
Ribbon looms	150	150	486	540	540	540	--	540
Printing rouleaux	5,800	5,800	9,800	18,000	28,700	28,700	30,000	46,000

The phases of the industrialization are clearly reflected in the various aspects of the Hungarian textile import. At first, there was an attempt to curb the import of high-priced manufactured goods and to increase the production of fabrics and other goods. This increased yarn consumption was covered by increased import as well as stepped up domestic production until 1932. At this point, spinning mills were operating at such capacity that yarn import became less and less necessary and consequently it dropped off as had the import of fabrics previously, in particular after 1935, the government encouraged the development and modernization of spinning mills by applying an investment tax of 2 percent on the retail price of manufactured goods. Since 1935, the cotton industry has increased by 140,000, the wool industry by 53,000 and the shoddy industry by 26,000 spindles, a situation improving the unbalanced ratio between spindles and looms which existed previously. Industrialization resulted in a vast import increase in raw materials, accomplishing a major purpose of industrialization -- the import of "inexpensive" raw material instead of "expensive" finished products. During 1939 the shortage of raw material made itself felt, forcing Hungary to import the needed yarns where possible.

The export of fabrics increased at the expense of raw materials. Hungary attempted to consume her domestic textile raw materials to maximum possible extent. A textile fund founded in 1936 encouraged the export of manufactured goods through an increased allotment of raw material to exporters of such merchandise. In actual figures, however, export generally dropped simply because cutting off the foreign market greatly influenced sales and prices

on the domestic market which, compared with the difficulties and risks of foreign export, seemed much more secure and profitable. Due to the consolidation of Rumanian and Yugoslavian territory, the Hungarian textile industry must supply a demand increased by one-fifth, which indicates continuous development of the textile industry; although already planned, this will not go into effect until after the war.

WOOL

Supply of Raw Material

In order to promote wool production, Hungary controls sales and prices of domestic wool. According to a statute issued in 1936, "Futura" purchases the total output of raw wool, turning it over to manufacture or merchants at fixed prices, who are responsible for the sale or manufacture.

Output of Raw Wool in Trianon - Hungary

as defined by Peace Treaty signed 1920

<u>Year</u>	<u>Tons</u>	<u>Year</u>	<u>Tons</u>
1923	5,000	1932	4,853
1924	5,990	1933	4,218
1925	7,480	1934	4,990
1926	7,480	1935	5,897
		1936	6,622
1930	5,851	1937	6,804
1931	5,761	1938	7,983

These steps were necessary to assure the farmer of stable prices and good grading to ease the risk of sheep raising and to keep the farmers interested in the latter; this branch of farming is not as developed in Hungary as it is in other Southeastern countries since the land is extensively farmed similar to Germany. Thus, there are 19 head of sheep per 100 hectare of farmland in Hungary, 17 in Germany (Altreich) while in other Southwestern countries sheep stock is 3-5 times that.

Based on the statistics for the year 1938, the territories of newly formed Hungary have the following sheep stock:

	(in 1000 head)
Trianon-Hungary	1,629
Northern sector	167
Carpathian Russia	95
Northern Transylvania	1,357
Bachka	250

Thus, $3\frac{1}{2}$ million sheep may be estimated not allowing for the severe winter of 1939/40; this decline may by now be corrected. The increased supply of raw material for the wool industry however is limited since part of Hungarian wool is inferior. The coarser wool of the Zackel sheep and the finer wool of the Zigaja sheep are slightly yellow, mottled with red hair and because of unskilled handling have shortcomings which effect the manufacture. Because of the scarcity of foreign exchange, inferior domestic wool had to be used. Today, Hungary utilizes about 85 percent of her wool industrially, while a small part of the rest is absorbed by the home

industry, the major part by export. Germany has been absorbing this export to a major extent when Hungary requested payment for this wool in unfrozen foreign currency, Germany had to do without a large part of specific high grade cloth. The decline of the wool export is significant considering that up to 1939 it amounted to more than 4000 tons but in recent years shrank to next to nothing. In fact, it became necessary to import 1 - 2 million kilograms of wool annually.

The Spinning of Wool

After the peak of the wool yarn export in 1937 a steady decrease may be noted. In recent years German supply varied between 35 and 40 percent. Since the establishment of the Wool Statute (1936) import licenses were only issued for approximately 20 percent of raw material for the spinning of crossbred wool and 30 percent of Merino wool. Inasmuch as high grade wool in Hungary is not plentiful and domestic wool lends itself in the majority of cases only to the use of carded wool, this industry has been developed while that of worsted wool has declined since 1937. Since the start of World War II, 76 percent of staple fiber have been added to carded wool and 70 percent to worsted wool in order to stretch available wool supplies. Hungary is the first country in the Southeast to introduce synthetic fibers to an appreciable extent, thus keeping her industry steadily busy.

From 1921 to 1940, the number of wool spindles increased from 5,800 to 102,800, 40 percent of which are being used for worsted

wool. The two leading plants in Budapest and Sorpon are closely connected with leading German plants manufacturing worsted wool. Moreover, two medium sized spinning plants turning out worsted wool are located in the vicinity of Budapest and in Gyor. The following plants producing carded wool are to be noted: 1 large plant, 5 medium and 5 small plants in Budapest and vicinity, 1 large plant in Gyor, 1 medium and 1 small plant in Sopron and 1 small plant in Koszeg, Vac and Baja in the case of all carded wool plants and in many plants producing worsted wool, other phases of spinning are part of their activities. In addition to supplying her own market with wool yarn, little is exported and this export may be attributed to the two large plants producing worsted wool.

Hungary's wool industry gained several small plants through the absorption of territory previously belonging to Yugoslavia, such as one plant each turning out mixed products in Apatin, Odzaci, and Kula and several small wool weaving plants in Neusatz.

Weaving of Wool

The import of woolen goods experienced a development similar to that of wool yarn. While it reached its peak in 1924 its recession was more marked. While in 1932 the import of woven wool played an important part in the Hungarian textile import, in 1933 it exceeded the export only slightly. This development may be compared with that of weaving, which also out-produced spinning. Particularly in Egypt, through the advantageous economical posi-

tion of Hungary as consumer, the latter managed to out-maneuver Czechoslovakia's market of woven wool.

During the years 1921 to 1939, the number of wool looms increased 6 times, amounting to 2,200. Many of these weaving mills operated on the same premises as wool spinning mills, since many cloth mills combined their operations with those of carded yarn mills. In Budapest and vicinity were 3 large, 4 medium and 7 small mills, the latter operating at least 20 looms. Moreover there is a mill of medium size in Sopron and in Gyor, some of medium size in Gyor, Koeszeg, Tolna and Baja and 10 in newly acquired Backa. A specific dividing line between wool weaving mills and cotton and silk mills in many cases cannot be drawn since various types of fabrics are being manufactured, thus classifying these mills as mixed plants. The above statistics do not include plants of negligible size, operating only a few looms nor the home industry, the latter not being as developed as that in the Southeastern countries.

In regard to weaving, spinning and even in the wool manufacture, the Hungarian wool industry has reached a high degree of self-sufficiency. If the present level of supply is to be maintained, the wool industry will require further development due to the fact that the absorbed territories despite their own sizeable home industry cannot cover their own needs. Establishment of wool washing, carding and spinning mills have already been planned in Szeklerland, whose sheep breeding though of poor quality is sizeable but lacking mills except for its home industry.

Despite the development of the domestic wool industry it is

doubtful that in the future domestic production will again be able to meet the demand as it did before. The purchasing power, weakened by the crisis and government measures necessitated by the lack of foreign exchange, resulted in decreased demand. It is also debatable whether or not the development of Hungary's wool industry considers covering the domestic market to its advantage. Because of its high level in fashions and taste it can easily satisfy first rate demands and for this reason, its products are highly competitive on foreign markets. If this situation has not been felt in export, it was due to the fact that domestic enterprises were busy supplying their own market. An increased purchasing power and stabilization of supplies of raw material will help increase the demand for products of the Hungarian wool industry, thus lowering manufacturing costs; for this reason, active importing and exporting is suggested rather than autarchy and exclusion from international competition.

SILK

Supply of Raw Material

Rayon, whose use in the silk industry as compared with natural silk is gaining importance, is a chemical product for which there is available sufficient domestic raw material, and which reaches the textile industry as a semi finished product (yarn). Thus, the supply of raw material as explained in the foregoing is of minor importance to the silk industry; the supply of raw material for natural silk will be viewed as follows:

During the years 1937 and 1938, sericulture decreased in the most important regions such as the southern part of Transdanubia, in Komitat, Tolna, Somogy, and Baranya where they are subsidized by the government. Only the efficient initiative of the Lanesispektorat for sericulture in 1934 succeeded in an expansion of mulberry planting. Moreover, mulberry seeds, saplings and mulberry trees were distributed gratis in great numbers thus producing an increase in mulberry trees of 1.2 million (as compared with 0.3 million after the war).

CROP OF COCOONS IN HUNGARY FROM 1928 TO 1940
(Collected fresh cocoons)

<u>Year</u>	<u>Tons</u>	<u>Year</u>	<u>Tons</u>
1928	436	1934	424
1929	524	1935	236
1930	772	1936	493
1931	494	1937	267
1932	613	1938	267
1933	506	1939	496
		1940	464

SILK INDUSTRY IN HUNGARY

	Unit	1935	1936	1937	1938	1939
Communities taking part in the silk industry	quantity	1,985	1,985	1,967	1,971	1,947
Sericulturists	quantity	16,163	21,187	13,607	21,270	19,393
Distributed silk worm larvae	kilograms	272	349	238	252	326
Crop of fresh cocoons	tons	236.5	492.6	266.9	267.2	496.2
Purchasing price	1,000lbs	179	469	252	351	821
Silk industry	tons	20	40	20	-	--
Distributed mulberry tree seeds	kilograms	251	263	703	35	367
Distributed mulberry tree saplings	1,000 pieces	282.0	184.2	467.5	1,205.0	476.5
Distributed mulberry trees for cultivating	1,000 pieces	104.0	61.6	52.0	31.8	116.5

This indicates how the crop of cocoons in 1939 reached 500 tons and it is hoped that it will reach 6 to 800 tons in the near future; this figure has almost been reached through the absorption of territory. Backa, which was absorbed in 1941 has been a noted sericulture area for centuries; thus, the expansion of the Hungarian cocoon crop may be estimated at 40 percent to date.

According to the following table, exporting of cocoons and cocoon waste is negligible and indicates, particularly in recent years, that Hungary would be a good market for expanded cocoons breeding.

HUNGARY'S COCOON CROP AND EXPORT
(in dozens)

Year	Crop	Import		Export	
		29 (includ- ing silk waste)	--(only cocoons)	499(in- cluding silk waste)	282 (only cocoons)
1928	4,356.-				
1929	5,240.-	24	-	422	290
1930	7,720	12	-	1,314	1,114
1931	4,944	4	-	204	47
1932	6,132	10	-	283	113
1933	5,060.-	142	-	1,924	1,283
1934	4,246.-	1,721	145	179	2
1935	2,365.-	685	422	471	313
1936	4,926.-	1,464	532	679	367
1937	2,669.-	531	159	401	182
1938	2,672.-	150	92	383	193
1939	4,960	508	-	154	51
1940	4,640	588	-	280	-

Due to a good crop during the years 1930 and 1933, a sizeable export of cocoons was possible, while an insignificant amount was imported from Bulgaria. Should the crop of silk cocoons exceed the domestic demand, the over-abundance will be readily absorbed by the silk industry of Central Europe.

Natural Silk Yarns

In 1940, Hungarian silk spinning mills operated more than

456 silk reels. Towards the end of 1938, one silk spinning mill in Tolna started operating and a plant opened up in Győr in 1939. Both these plants employed a crew of about 1,000. The plant in Tolna alone produced approximately 2,500 kilograms of silk yarn and 1,900 kilograms of silk thread monthly; new machines guaranteed an improvement in quality. Moreover, in 1940 after having been closed for 26 years a silk factory in Komorn was opened up with the help of government funds in addition to the, once state owned, Yugoslavian silk spinning mill in Neusatz.

HUNGARY'S EXPORT OF SILK YARN

(in dozens)

Year	Rayon and Silk Yarns		Of these:	
	Import	Export	Import	Export
1929	13,173	2,268	2,170	157
1930	17,849	2,260	2,258	221
1931	19,463	1,285	3,666	242
1932	16,549	313	3,434	73
1933	19,929	547	2,538	428
1934	25,774	1,343	503	56
1935	30,317	3,700	283	389
1936	35,661	5,788	707	967
1937	39,501	2,925	647	330
1938	24,137	2,168	585	261
1939	41,087	1,633	749	111
1940	58,445	209	884	25

HUNGARY'S RAYON EXPORT
(In dozens)

<u>Year</u>	<u>Import</u>	<u>Export</u>
1929	11,003	2,111
1930	15,291	2,039
1931	15,797	1,043
1932	13,115	240
1933	17,391	119
1934	25,271	1,287
1935	30,034	3,311
1936	34,957	4,821
1937	38,854	2,595
1938	23,552	1,907
1939	40,338	1,522
1940	57,561	184

The capacity of the silk spinning mills amounts to 500 tons per year and is in full swing. In connection with the spinning of silk waste, a remarkable increase in the number of spindles is to be noted (it rose from 5,800 in 1921 to, 46,000 in 1940.)

A comparison of the import and export of natural silk and silk waste yarns indicates that the Hungarian Silk weaving mills could considerably step up the output of domestic silk spinning mills and waste silk mills.

RAYON

Since 1928, the consumption of rayon has increased tremendously. After a recession in 1938, rayon import rose to more than 5,000 tons in 1940, of which more than half can be attributed to Germany and the balance to Italy. Almost in its entirety it is imported as undyed rayon yarn. It is a significant fact that considerable amounts of rayon yarn have been exported with Hungary acting as middleman but also as refiner and throwster of the yarn. The majority of these shipments were destined for the Southeast, particularly Yugoslavia and Rumania; in the meantime, this newly developed export had to come to a step due to shortages caused by war conditions.

The Hungarian Viscosa A. G., founded in the spring of 1941, scheduled for a daily output of 10 tons of staple fiber and 2 tons of rayon is instrumental to a stepped up domestic production of synthetic spinning fibers. The factory, designed after a patent of Feldmuhle A. G. of Rohrschach, will be erected in Nyergesujfalu. Production is scheduled to start in 1943. Raw material for this industry is to come chiefly from forests, an abundance of which was gained by the absorption of the Carpathian Mountains and Northern Transylvania. To this may be added an abundance of corn and cereal straw, as well as reed. The remarkable fact that Hungary also exported rayon may be explained -- as mentioned in the foregoing -- not only by her role as middleman but also as manufacturer. This export consisted chiefly of twisted rayon manufactured at the twisting mill in Magyarovar

operating 18,000 spindles.

The Hungarian rayon consumption amounts per capita to approximately one half the German; a further increase is to be expected despite the fact that in other branches of the textile industry the quota per capita compares unfavorably with the German consumption. An output of about 600 tons annually, as planned, or about one-tenth of the import as attained in recent years does not even cover a fraction of domestic demands.

Silk and Rayon Fabrics

Only to some degree are silk and rayon products consumed by the silk industry. The weaving and knitting industry are the main consumers; the cotton weaving industry is another important consumer. The relationship between the manufacture and consumption of raw material in the silk industry is not as close as that of other textile industries whose spinning material is balanced by an approximate exchange of such material. That is why statistics on import and export of raw material, semifinished and finished goods classified tariffs as belonging to the silk category cannot be used to show the situation and development in the silk industry. This is particularly true in the case of rayon import and the export of fabrics and other finished products.

The majority of silk weaving mills are in Budapest, consisting of 4 large, 7 medium and 5 small plants. There are one large and two medium mills in Győr, 3 medium in Sopron and one medium sized mill in Szentgotthárd. Most of these are so-

called mixed plants manufacturing cotton and rayon in addition to silk. Many of them use mainly crepe yarns for which two plants in Budapest and the plants in Szentgotthard are specially equipped. Hungary expanded its silk weaving industry through annexation of Backa with four medium and three smaller sized mills in Neusatz, three small mills in Somber and one small in Vrbas.

The capacity of Hungarian silk manufacture may be emphasized by the fact that before the war the export was twice as great as import.

STAPLE FIBER

Because of its manufacture and use, staple fiber belongs to the cotton and wool industry, and due to its technical production connection with rayon it will be discussed here. The regulation requiring a high percentage of staple fiber to be added to cotton and wool brought about a sudden increase of import.

Hungary's Import of Staple Fiber

<u>Year</u>	<u>Tons</u>
1933	210.9
1936	1,501.3
1937	3,611 .1
1938	3,091.6
1939	4,370.0
1940	4,193.5

While in previous years, Italy supplied the major portion, in 1940 more than half came from Germany. In recent years, the import of staple fiberyarn increased considerably, particularly fiberyarn manufactured according to the cotton spinning method. In the cotton industry particularly, increased consumption of staple fiber must be expected inasmuch as in this industry this product has not reached the recognition due it as a fiber equal in many respects to cotton. Staple fiber as a blending material for wool is here to stay even if supplies of wool should improve at some future date. Domestic manufacture of staple fiber planned for 1943 will easily cover the demand.

COTTON

Manufacture of Raw Material

Attempts have been made to grow cotton in Hungary but the number of sunny days was insufficient. A crop could be expected only during exceptionally dry summers, and then it would hardly amount to anything worthwhile considering the tremendously increased demand since 1920. Since the outbreak of the war import of cotton, which used to come mainly from North America, has become very difficult. In 1940, agreements were made for the delivery of 9,000 tons of cotton from Russia and 2,000 tons from Turkey, which was to constitute the basic supply for the year 1941. Russia's shipments, however, did not materialize. According to statistics cotton import dropped to 18,900 tons during the year 1940.

With the aid of subsidies, the Hungarian cotton industry recently opened up important Kotonisierung plants using Ollein

and South Hungarian hemp as raw material. Kotonin, or Flockenbast
 [a kind of raffia] produced yields of a very short fiber and is
 being spun together with staple fiber.

Raising of Fasernessel [a nettle of the urtica family]
 could be of great importance to Hungary, cultivation of which as
 compared with that of cotton amounting to three to four times as
 many hectares and might constitute the basis of a valuable fiber
 production. The Hungarian cotton industry invested five million
 Pengo and signed a purchase agreement with the farmers so that the
 total investment exceeds considerably this sum. Creation of an
 association is planned as an agent to solve all problems in con-
 nection with the raising and production of this fiber.

Cotton Spinning

Similar to the Hungarian textile industry, in the cotton
 industry as well the shifting from semifinished and finished
 goods to the import of raw material may be observed. The speedy
 development of the cotton industry and particularly the cotton
 spinning industry right after World War I led very nearly to
 self sufficiency in cotton yarn. Cotton yarn import dropped to
 about one-tenth of the peak reached in 1927. What little is still
 being imported is required by the demand for high-grade material
 which would be relatively expensive if produced in Hungary, a
 country with limited outlets for such merchandise. Before World
 War I, the export of cotton yarn was equal to its import -- a
 development expressing the potentialities of the Hungarian spin-
 ning industry in the manufacture of staple qualities. Yet there

has not been excessive exporting of cotton yarn because of the new territories which are poorly industrialized and thus jeopardize a balanced import and export. It has been planned to establish some 10,000 spindles in Transylvania to supply the populace in this region. The number of cotton spindles rose from 33,000 in 1921 to 340,000 in 1940. The capacity of thread spindles is well able to supply the domestic demand, as borne out by the fact that the reduced import consists almost in its entirety of standard yarns.

The hub of the cotton industry is Budapest. There are six large spinning mills, two medium and two small mills. Moreover, there is a medium sized plant each in Papa, Győr, Rimaszombat and a small one in Pomáz. Most of these and particularly the large plants operate a weaving plant in addition to their spinning mill.

Cotton Weaving

The growth of cotton weaving exceeds that of cotton spinning. As for cotton fabrics, import reached its peak as early as in 1924. For the development of this era the import which in subsequent years remained more or less unchanged is no criterion because the increased demand in the years preceding the outbreak of the crisis absorbed the increased production. Only after these auspicious years, together with the import slump in yarn, came a recession of textiles. It may be noted here that since 1932 the export of cotton fabrics and related commodities exceeded the import. While imported goods

originated chiefly in Germany and Italy, export went to a great extent to Egypt and the Southeast. The number of cotton looms (only 18 percent of them automatic) rose from 4,100 in 1921 to 14,500 in 1940, these are distributed as follows: six large, eight medium and eighteen small plants in Budapest and vicinity, one large plant in Győr, one medium sized plant each in Pápa, Sopron, and Szombathely and one small mill in Tolna and Pomáz. One company in particular stands out through its production of a product of good taste which resulted in export all over the world. Through the integration with Northern Transylvania, one large plant in Szentgyörgy and one small one each in Szatmar and Kolosvar have been gained. With the Backa, three medium and several smaller weaving mills have been gained by Hungary. The market for cotton fabrics manufactured in Hungary is being considerably stepped up by a rather productive processing industry of which the printing industry with 57 rouleaux is able to cover the domestic supply and the export.

The Hungarian cotton industry, comprising 35 percent of the total textile industry, and therefore first place, has converted from importing of finished goods, as was done 10 years ago, to importing of raw material and is now supplying to a great extent the domestic needs. This does not outrule import as even industrially equipped countries readily exchange finished products, particularly since every industry, even every plant lands its products a special trend of its own. This is particularly the case in the fashion-minded textile industry if the latter is to satisfy the demand of a populace such as the Hungarians, a people

culturally on a high standard and influenced by the heavy industrialization and by their big towns. Progressive industrialization, therefore, does not mean exclusion from other markets of self-efficiency for the Hungarian market, but leads to possibilities of an increasing exchange of commodities in many fields.

RAFFIA FIBERS

Fiber of a certain Madagascar Palm

Manufacture of Flax

Flax is being raised domestically in increasing quantities. It is chiefly being grown in the Northern and Northwestern parts of Trans-Danubia and the foreland of Upper Hungary. The yields fluctuate, which may be attributed to business booms as well as to climatic conditions. Although there was no chance of self-sufficiency, in 1929 and 1936 extensive export could be noted, while the import of flax remained negligible. Only recently was this situation studied and measures taken to step up flax cultivation.

The true reason for the lack of interest in flax raising is not, as may be assumed, the reduced consumption of flax whose place to some extent has been taken by cotton but which can in many respects not compete with flax, but may be explained as follows: it is the coinciding harvesting of flax and grain and the extensive amount of work required for the growing of flax. The coinciding with grain could be alleviated by growing winter flax, which, however, will only grow in Southern Hungary.

FLAX PRODUCTION IN HUNGARY

No separate data available for both groups for 1932 and 1933:

Farm area	1932	6,000 hectares	1933	8,000 hectares
Fiber production	1932	2,300 tons	1933	3,400 tons

Flax Cultivation, designed chiefly for fiber production Flax Cultivation, designed chiefly for linseed production

Year	Farm Area in 1,000 hectares	Yield (fiber) of hectares in dozens	Fiber pro- duction in tons	Farm Area in 1,000 hectares	Yield (fiber) in dozens	Fiber Pro- duction in tons
1934	3	3.7	1,200	12	1.2	1,500
1935	3	3.8	1,000	10	1.2	1,100
1936	3	5.0	1,800	6	3.6	2,100
1937	4	4.5	1,700	7	2.0	1,300
1938	3	4.6	1,600	8	2.2	1,900
1939	4	5.4	2,200	8	2.5	2,000

(These figures based on statistics not including the Russian Carpathians; the latter raise only a negligible amount of flax.)

An increased flax fiber yield may lend to an improvement in the supply of raw material in the Hungarian textile industry. As a result of extensive experimenting, Lotonin is being used in the cotton industry to a great extent.

Hemp Production

The hemp situation differs from that of flax. Despite crop fluctuations in recent years, a steady increase in the production and consumption of domestic hemp may be noted. In proportion, the import of the finer Italian hemp has dropped to only small shipments.

In quantity, Hungary was perfectly able to cover domestic hemp needs of trade and industry in addition to delivering the hemp needed by the jute industry, which was required to add 40 percent of tow to its products. Hemp cultivation, with its main territory in Trans-Danubia south of Lake Platten and in the Theiss region, is still growing, and extensive export may be expected. Due to the absorption of Yugoslavian territory, the Hungarian hemp industry increased about 60 percent as compared with previous Yugoslavian production, i.e., about 30,000 tons, thus putting Hungary in first place amount exporters of soft hemp. Hemp cultivation in Backa and Baranya was started by German settlers many centuries ago and through steady development reached outstanding quality. Many years of experience of these settlers resulted in hemp of a quality unsurpassed in the Southeast, as far as its yield in hectares and its quality are concerned. Germany is the foremost consumer of Backa Hemp with an eye on an over-supply for export, thus assuring a bright future for the hemp cultivation in Southern Hungary. Farmers process the hemp bark to a great extent, extracting a first rate fiber used in the manufacture of yarns and ropes. As in the case of flax, its waste is being used

for the manufacture of Kotonin, which in turn aids in the supply of raw material. Utilization of wooden particles (wood components of the hemp) has not been possible because of shipping difficulties although it would lend itself to the manufacture of cellulose. The South Hungarian Hemp Association was founded to promote hemp cultivation in Backa; ~~it~~^{it} sees to the proper distribution of seeds, fair distribution of the crop and prevents unwarranted competition. The latter has been noted in connection with the export of hemp to Germany in particular.

HUNGARY'S RAFFIA FIBER IMPORT AND EXPORT
(in 1,000 tons)

<u>Year</u>	<u>Jute</u> <u>Import</u>	<u>Flax</u>		<u>Hemp</u>	
		<u>Import</u>	<u>Export</u>	<u>Import</u>	<u>Export</u>
1922	5.4	0.2	0.1	2.1	0.6
1923	4.6	0.2	0.2	1.7	0.8
1924	6.6	0.3	2.3	0.8	0.7
1925	7.8	0.9	0.5	4.9	1.9
1926	5.6	1.0	1.3	2.7	3.3
1927	9.2	1.0	2.0	3.2	3.3
1928	9.7	0.7	5.2	2.8	4.1
1929	11.2	0.6	6.0	2.7	3.0
1930	10.9	0.3	4.9	3.2	1.3
1931	7.8	0.2	2.0	2.9	1.2
1932	5.7	0.7	1.1	2.3	2.5
1933	8.4	0.7	2.1	1.9	3.9
1934	6.3	1.2	3.6	1.9	1.8
1935	11.5	0.9	3.9	2.1	3.5
1936	11.4	1.1	6.7	1.2	3.5
1937	14.7	0.9	5.3	1.8	3.3
1938	5.9	0.6	3.5	0.7	4.8
1939	7.9	0.6	8.3	0.7	6.4
1940	1.6	0.1	5.0	0.3	1.1

Other Raw Materials

The Raffia industry consumes a considerable amount of raw material originating overseas which cannot be grown in South-east Europe. Among it are chiefly jute used for the manufacture of sacks, rugs, haystack binding, etc, Manila hemp and Sisal hemp used for knitting yarn and twine, as well as coconut fiber used for runners, door mats and cord. These raw materials, unavailable because of the blockade, can be substituted to some extent by other raffia fibers, such as hemp and hemp packing and in part by paper; the utilization of these raw materials, however, is limited because of their need for other strategic purposes. Hence, the above-mentioned branches of the textile industry are at the moment greatly hampered. In this connection, experiments made in Bulgaria with the cultivation of Abutilon, a jute like fiber, are of major importance.

Processing of Raffia

Hungary's capacities for the utilization of raffia is considerable. Since 1921, the number of flax spindles rose in 1940 from 10,000 to 20,000 and that of hemp spindles from 1,500 to 7,080. Within the same span of time, the number of flax and hemp looms rose to 1,720.

In Budapest there are one medium sized flax and hemp spinning plant and a medium sized flax spinning and weaving plant. In Komorn is a sizeable flax spinning and twining plant, in Dunafoldvar and Szombathely each one hemp-retting plant founded in 1941,

and in

~~Ersekujvar~~ Ersekujvar a small flax and hemp processing plant. Due to the absorption of Northern Transylvania, Hungary gained in addition to a sizeable linen weaving mill in Szentgyorgy in Szeklerland, 2 hemp and flax processing establishments of appreciable size. There are also some fair sized plants in Backa. There are one sizeable hemp processing plant each in Vojska and Gajdobra, 2 medium sized plants in Backa Palanka and Neusatz and several other smaller establishments. In Odzaci are one large and one medium sized plant. The Raffia industry of postwar Hungary with this industrial gain is now in a leading position -- as is the contrary of other Southeastern countries, where this industry is negligible. This does not mean that the Hungarian raffia industry has reached its maximum development. The present output of raw material with its potentialities and the good market outlook promise a bright future for this industry.

Budapest is also the seat of the jute industry, with 1 large plant amounting to about two thirds of the Hungarian jute industry (a total of 12,000 spindles and 925 looms). The balance consists of two large plants in Budapest and Ujszeged, which also process flax and hemp in quantities.

Raffia and related fibers are used not only in the manufacture of fabrics but in the making of all sorts of rope, from hawsers and cables used in mining down to twine. In this branch of the raffia fiber industry, trade is very important, though statistically production cannot easily be broken down. It is also difficult to determine the number and output of individual plants

because in many instances they are mixed plants manufacturing ropes, weaving yarns and fabrics. This mixing is prompted by the fact that the various kinds of spinning material develop as a by-product of the manufacture of raffia fiber.

HUNGARY'S REPORT OF RAFFIA FIBER YARN AND RAFFIA FIBER PRODUCTS
(in 1,000 tons)

Year	<u>Raffia Fiber Yarn</u>		<u>Raffia Fiber Products</u>	
	<u>Import</u>	<u>Export</u>	<u>Import</u>	<u>Export</u>
1922	0.2	0.2	3.5	0.6
1923	0.4	0.4	0.9	1.2
1924	0.6	0.5	0.9	1.4
1925	0.6	0.4	0.8	1.4
1926	0.7	0.5	1.2	1.4
1927	0.7	0.8	1.3	1.2
1928	0.7	0.6	1.1	2.5
1929	0.6	0.9	0.9	3.2
1930	0.3	1.1	0.6	2.3
1931	0.2	0.9	0.3	2.3
1932	0.1	0.8	0.1	1.4
1933	0.1	0.7	0.1	2.8
1934	0.1	--	0.1	1.6
1935	0.1	1.6	--	3.9
1936	--	1.3	--	3.2
1937	0.1	1.4	0.1	6.3
1938	0.1	1.1	0.2	1.8
1939	--	1.2	0.1	0.5
1940	0.1	0.6	0.2	0.4

According to the general economic tendency, flax and hemp-yarn import have decreased greatly since 1930, while the export of yarns in 1930 and 1935 and subsequent years rose considerably. The sizable pre-1930 import of finished products too has dropped considerably while exports has increased greatly (peak in 1937). These statistics indicate that this branch of the Hungarian industry not only covers the domestic needs but is able to supply the export market. As early as 1906, the Hungarian flax, hemp, and jute industry was able to supply domestic needs up to about 65 percent, thus ranking high in the textile industry of Hungary of those days. Since then, the jute industry has not been able to develop appreciably and was severely hit by the recession suffered by its foremost consumers, the mill and sugar industry. Thus, it could utilize only about 70 percent of its capacity in recent years.

The situation in the hemp and flax industry is different. As far as the spinning is concerned, the latter was done to capacity but could not meet the demand created by the linen summer fashions and the increasing demand of the armed forces.

WOVEN AND KNITTED GOODS INDUSTRY

After the cotton and wool industry, the woven and knitted goods industry stands in third place, with approximately 100 medium and small plants. ~~There are several medium sized plants in the capital.~~ There are several medium sized plants in the capital. Several medium sized plants in Rakospalota, Magyarovar, Vac and Bekeszaba bear mention. With the annexation of North Transylvania, Hungary gained a number of small plants in Kolosvar. The annexed Yugo-

slavian territories added several small plants such as those in Backa Palanka, two in Senta, two in Szabatka, and two enterprises in Neusatz. Jewish businessmen particularly were attracted by the small capital needed for the establishment of a plant for woven and knitted goods, thus resulting in hectic competition which oftentimes harmed smaller, but sound enterprises.

Duties on woven and knitted goods are very high, amounting, for example, to an average of RM 50.00 per kilogram for silk and rayon hosiery. Such duties can only be absorbed by high quality hosiery such as that weighing 110-160 grams per dozen. This is also the case with other products of the woven and knitted goods industry, importing only luxury articles while the domestic industry is able to manufacture standard merchandise.

TEXTILE CONVERTING AND OTHER BRANCHES OF THE TEXTILE INDUSTRY

The capacity of the textile industry, which is instrumental in the steadily expanding market for textiles over and above the domestic need, protected by tariffs, does not depend on production costs only. The latter enters, however, in the case of fabrics and standard woven goods. In the production of goods made to meet fashion requirements, sales are influenced by the fact that production must be in proportion with demand, proportion even influencing demand. This is to some extent the task of the converting industry, which in Hungary is so highly

developed that it competes with old established Central European converting industries even in their own territory. The market expansion thus created leads to further competition. The fact that the Hungarian export of textiles appears to be of major importance, may particularly in the cotton and silk industry, be attributed to some extent to the needs of the armed forces, production of these articles being located chiefly in the capital.

Among other branches of the textile industry, manufacture of rugs, decorator fabrics (medium sized plants in Budapest, Koszeg, and Sopron) and of oilcloth which is produced in a large plant in Gyor bear mention. Manufacture of curtains, embroideries, lace and passementerie should be mentioned here which, however, tend to factory-made manufacture and handicraft.

PROSPECTS

The postwar development of the Hungarian textile industry bears the following characteristics: as indicated by the shift in percentage of raw material, semifinished and finished goods of textile import, weaving, and, since outbreak of the crisis, spinning also have developed greatly. These import changes correspond to an increase in raw material but to a considerable decrease in import quantities of finished products and with 25 percent of yarn an unchanged share. The slightly increased textile export averaged -- expressed in value -- about equal to the textile import. Thus the textile economy taxes the budget, as its raw material import cannot be balanced by the negligible raw material export. Almost half the Hungarian raw material import, for that matter, is spinning fiber.

Hungary may have attained an economic textile autarchy through development of the industry, as far as this is possible. The Hungarian textile industry is not only readily able to supply the domestic demand in quantity but to satisfy the demand for high-grade goods through its versatility and capacity. The still-existing import does not contradict this as it is small compared with the import of other highly industrialized countries of Central and Western Europe. It only bears out that in the textile economy domestic production can only supply demand in proportion with the requirements of a people whose taste through dense population in cities and big towns demands greater quantities and is culturally on a high level. Moreover, the present situation of the Hungarian textile industry as one with an increased export market in other industrialized countries warrants mention. Where the question is

that of standard merchandise for the demand of the populace, the inland market is leading. For this type of merchandise, the demand of small countries usually suffices to develop a sound textile industry. For the expansion of such merchandising, Hungary is a good prospect; this is because of the annexation of territories which in proportion have only a small textile industry, as is particularly the case in Northern Transylvania.

Another incentive for industrial production is the increased manufacture of raw material for textiles, of which wool and hemp particularly, but also natural silk and flax, have a promising future. The same can be said of an increased purchasing power, which, as a result of intense farming, guarantees prosperity for agricultural products and industrial development. It is because of this increased purchasing power that improvements in qualities and production may be expected.

These prospects should not be interpreted as meaning that the development of the Hungarian textile industry is unlimited. One must not overlook the fact that Hungary is an export country for farm products and, particularly in view of the general political situation, should remain such. The increasing import independence of farm products could eventually lead to a point where the consumer of farm products would be unable to purchase merchandise to be paid for with commodities. For the time being this situation is not imminent and will not arise in the future provided Hungarian agriculture keeps its production in proportion with the European demand.

The production and market situation, as outlined herein,

indicate that there is a promising future for the expansion of the Hungarian textile manufacture in quantity and quality which, however, warrant further analysis. The expansion of territory and the raising of living standards, as outlined above, point to an increased domestic demand. Moreover, an increased export market may be expected, which is entirely feasible notwithstanding the maintenance of the present export of farm products, providing an increased absorption of foreign merchandise. This can only materialize if the exaggerated protective measures of the past industrial era are disbanded and such frequent attempts to replace import through domestic production are limited to such cases as are prompted by the need for an enlarged European economic territory.

GENERAL INFORMATION

The Rumanian Textile Industry, which dates back to the second half of the last century, did not gain major importance until the establishment of Greater Rumania, due to a lack of protective trade agreements except for a slight advance resulting from a tariff war with Austro-Hungary. The actual development of the textile industry started only in the post war years, and progressed rapidly because of government promotional measures which aroused investment interests in foreign circles (compare Manuscript No 10). A hectic increase began in 1933, after a slight decline prompted by the world-wide economic crisis and the resultant import restrictions and absence of foreign currency. During the last years the import of woven fabrics and finished goods was limited, as proven by trade statistics. Then too, spin-

ning advanced so greatly that the import of yarn decreased to such an extent that, coupled with a decrease of foreign currency, the wool spinning industry turned to domestic wool which was available in abundance.

The territorial changes in 1940 posed problems for the Rumanian textile industry inasmuch as the market was reduced more extensively than was production.

While territory and population were reduced approximately one-third, the textile industry (by value) was cut only one-tenth. However, the expected difficulties for the Rumanian Textile Industry because of this situation did not exist long; Bessarabia and Bukovina were rewon and integrated with Transnistria.

The period between 1933 and 1939 was one of major importance in the development of the Rumanian textile industry. The withdrawal of foreign funds resulting from the world-wide economic crisis caused a tremendous slump in importing; foreign currency was diverted to raw material if at all possible. Thus, the import of yarn also declined after 1935. As a result, the yarn industry joined the fabrics industry which had been engaged in importation since 1927, and simultaneously the raw material import increased considerably. As a consequence of its almost hectic development, the Rumanian textile industry, particularly the cotton branch, outranked the hitherto foremost industries -- food products and lumber; thus, the textile industry accounted for approximately 17 percent of the turnover of industries and 25 percent of the skilled manpower.

While Rumania's textile industry developed greatly after World War I and, in some respects, paralleled the rise of the Hungarian textile industry, there existed a great difference; it is an "inland" industry and hardly in a position to compete with the industries of other countries, even in times of normal output. It succeeded, however, in supplying domestic demands almost completely and in curbing the importation of finished goods. Consequently, after a feverish increase during the years 1931 to 1935, the import of yarn dropped considerably.

WOOL

Production

Rumania in 1939, with a total of 13 million sheep, ranked fourth among the wool-producing countries of Europe and manufactured 23 to 24,000 tons of wool-in-the-grease. Through the cession of territory, the sheep stock was reduced to less than 9 million (Rumania lost approximately 1.35 million sheep through the loss of Northern Transylvania). During the period of Bolshevik rule, the breeding of sheep in Bessarabia and Bukovina dropped sharply. Only 1.4 million are left of approximately 2.4 million. However, a total of about 300,000 head of sheep have been added from Transnistria.

In order to analyze the possibilities of supply, it is necessary to define the proportion of wool manufacture and wool imported and its usage in Greater Rumania. Even today, a significant part of woolen goods is manufactured in the homes of farmers. While the industry uses the wool of the domestic Zigaya sheep and its cross-

breedings for coarse and medium-fine carding wool, the home industry uses chiefly the coarse wool of the Tzurkana sheep, and from it manufactures rugs and clothing for farmers. The primary Zigaya sheep breeding areas, i.e., the lowlands of the Danube, the plains on the foot of the Southern Carpathian Mountains, the Dobruja, the highlands of Transylvania and the southern part of ~~the~~ Moldavia, represent the foremost Rumanian sheep-breeding regions. Tzurkana sheep appear chiefly all over the Carpathian Mountains of Rumania, in Bukovina and in Northern Bessarabia.

In percentage, the various types of sheep are broken down as follows: Tzurkana sheep, the coarse wool of which is used for the needs of the rural populace, comprise about 60 percent of the Rumanian stock; 30 percent is comprised of Zigaya sheep with medium grade prime wool, 5 percent is Caracul sheep, the coat of which is used by the fur industry; and 3 percent is made up of Stogosa sheep with medium-fine wool. The rest is made up of Merino, Spanca and Carnabat sheep.

Although industrial usage of domestic wool in the postwar years rose, and in 1927 reached only one third of its total yield, during the crisis of production restrictions of the wool industry it fell to 15 percent. Due to the shortage of raw material caused by the lack of foreign currency, the use of domestic wool for industrial purposes has increased steadily since 1933 and during recent years may have amounted to 40 percent of the total output. The home industry uses that which cannot be utilized by the

commercial industry, such as, for instance, the coarse wool of the Tzurkana sheep. The increased use of domestic wool was at first at the expense of export, which since 1929 steadily decreased (approximately 1,000 tons) and recently came to a complete stop. In recent years, however, the home industry also suffered under the increase of the industrial demand.

With the support of Germany, measures have been taken to step up quantity and quality of Rumanian wool. This increase of quantity alone does not help greatly because the coarse domestic wool is not suitable for woolen fabrics unless the quality is improved. Therefore, attempts are being made to produce a breed which not only has finer fleece but also will adapt itself to climatic conditions, etc. The following improvements are planned in order to improve the quality of domestic wool for industrial use: training of sheep ranchers, improvement of pastures, processing methods, rating and storing of wool. An office for wool administration called "Ofil" (Oficiul Lanei) has been created to supervise all these steps. In this way it may be possible to open up lucrative foreign markets for Rumanian wool thus creating a balanced exchange of coarse domestic wool and foreign blending yarns necessary for the manufacture of fine yarns; this procedure would insure Rumanian self-sufficiency.

Wool Spinning

The wool industry is the oldest and best developed branch of Rumanian industry. It is closely connected with work carried

out in German Colonies and has particularly progressed wherever Germans settled. The wool industry in Old Rumania dates back to the eighteenth century.

Stalin and Sibiu in Transylvania, Temesvar in the Banat, Bucharest and vicinity, and Buhusi on the Moldavia are the major wool spinning centers. After World War I, Rumania absorbed territory where the wool industry already was fully developed. Because of this Rumania's wool industry advanced to a leading position. At that time, 75,000 spindles were turning out carded wool and ranked highest among the various branches of the textile industry. It supplied nearly all the demand and could, therefore, expand only by increasing its consumption. There was sufficient leeway for the latter due to the low living standards and large portion of woolen goods produced by the home industry. Conditions since 1929, however, did not change drastically so as to step up the spinning of carded wool. That is why the number of spindles until 1940 rose only to 96,000. Spinning of worsted yarns, however, which until 1935 employed only one plant dating back to Austro-Hungary with 6,000 and later 10,000 spindles, developed greatly (spindles increased in 1939 to roughly 57,000).

Statistics on Rumanian yarn production should be taken with a grain of salt. Comparing this industry with the wool consumption it must be noted that the latter fluctuates not as much but similarly to the yarn industry, which may be explained by an accumulation of wool during the crisis and its consumption in the stepped-up production period of 1931. The significant fact that

the decrease in production and consumption started in 1927 could be blamed on the price sliding due to the weakened demand of the farmers, i.e., even before the outbreak of worldwide economic crisis. Smaller plants spinning carded wool are closely supervised by the State. In normal times great amounts of wool are spun by industrial labor, while during the crisis yarn is spun right on the farm.

Since 1932 the production of wool yarn has picked up again -- partly because of government regulations promoting the use of domestic wool, partly because of government regulations promoting the use of domestic wool, partly because of the fast expansion of the spinning of worsted yarn. In 1928, with only a few thousand spindles producing worsted yarn, extensive import of this yarn was necessary. (Only a negligible amount of carded yarn was imported). As aforementioned, up to 1935 there was only one worsted yarn spinning mill while in subsequent years plants were enlarged and new mills founded so that today three large worsted yarn mills are operating 10,000 spindles in Bucharest, Floesti, and Temesvar, in addition to a medium-sized plant in Chimbau and Bacau, and a small one in Temesvar and Sighisoara. Moreover, in 1939 two medium-sized worsted yarn spinning mills have been opened up in Bucharest partially with Italian capital running a total of 6,000 spindles. In 1939 there were 57,100 spindles producing worsted yarn, which explains the decrease of worsted yarn import in recent years.

In order to stretch wool stocks, 30-40 percent staple fiber for men's cloth and 40-50 percent for ladies' fabrics is required.

This situation helps the expansion of the Rumanian staple fiber consumption which has already profited by the mixing of staple fiber into other fabrics in recent years.

The direct development -- from wool to finished fabric -- is characteristic for the Rumanian wool industry. This is particularly the fact in the case of the carded yarn industry. However, most of the worsted yarn spinning mills are in immediate contact with weaving mills, either direct or through membership of an association of manufacturers. Large enterprises spinning carded yarn are in Stalin, Timisoara and Buhusi. The plant at Buhusi is the center of the leading Rumanian wool trust in addition to a medium sized plant in Floesti and one of equal size in Azuga, both of which combine the weaving processes. There are three medium sized carded-yarn mills connected with weaving at Sibiu and one in Bacau. Plants of smaller size, which, however, are operating as independent spinning mills are located in fairly large numbers in Sibiu and vicinity while a small carded yarn spinning mill is located in Bacau.

Wool Weaving

Since 1924, production and consumption of wool yarn and wool fabrics have developed at about the same intensity. A drastic decrease followed the brisk increase of 1927, which in turn was followed by a renewed increase (except for an interruption during the years 1934/35). While in both phases, domestic production never covered more than 50 percent of the demand, weaving increased considerably thus after 1930 rendering export meaningless.

As early as in 1919, the wool weaving industry operated 1,400 looms, a number which did not change much until 1928. After the crisis, which also reduced the wool weaving production, this branch of the industry was developed considerably (by 1937, 4,200 looms were operated and in 1939, 4,372). While in 1927 wool weaving production was slightly higher than in 1937, this decade brought about a change of carded and worsted fabrics necessitating additional equipment. By now, the demand for better fabrics can be covered by the domestic industry leaving only a small market for export.

The location of wool weaving plants oftentimes is identical with that of wool spinning, particularly since many of these plants combine both these operations. ^{the} Aforementioned large enterprise at Buhusi ~~with~~ ^{and} its associated trust firms in Bucharest, Floesti and Azuga are leading. In addition to these, there are a medium sized plant and a number of small plants in Bucharest. There are one medium and two small plants in Bacau, two small ones in Jassy and one small one each in Galati and Craiova. There are one large and three small plants in Timisoara, one large and one medium sized enterprise in Stalin, one medium sized one in Sighisoara, three medium and sixteen small plants in Sibiu and one small plant in Rupea. Furthermore, Sibiu is considered the seat of an important rug manufacture.

In the Rumanian wool industry, the boom was not as marked as in other branches of the Rumanian textile industry. This fact is indicated not only by the mechanical equipment but also by the number of workers employed during the last decade and again by the

recession ¹² the percentage of ~~the~~ wool industry ^{is} the actual production value. Nevertheless, also in this branch progress may be noticed consisting chiefly of production improvement, increased capacity, a rise in self supply, import restrictions and their shifting from finished to semifinished products in raw material. Generally speaking, the wool industry reached a comparatively leading position earlier than other branches of the Rumanian textile industry. Even today, no other branch of the Rumanian textile industry has reached a degree of self supply comparable to that of the wool industry.

SILK

Production

After World War I, the development of Rumanian silkworm breeding was actively promoted. With an output of more than 500 tons, the yield of raw [fresh] cocoons reached its peak in 1929. Since then, a drastic decrease set in prompted by the influence of fluctuating international quotations and a country-imposed monopoly of the cocoon trade. The Banat province particularly, considered the silk production center, lost all significance. By 1935, the cocoon yield amounted to a mere 13 tons. Since then it has picked up somewhat. With the exception of the extraordinary crop of 400 tons in 1939, an average of about 60 percent of the previous output may have been reached.

While in past years about 10 percent of the domestic cocoon crop was exported, this export has ceased entirely since

recession ^{is} the percentage of ~~the~~ wool industry ^{is} the actual production value. Nevertheless, also in this branch progress may be noticed consisting chiefly of production improvement, increased capacity, a rise in self supply, import restrictions and their shifting from finished to semifinished products in raw material. Generally speaking, the wool industry reached a comparatively leading position earlier than other branches of the Rumanian textile industry. Even today, no other branch of the Rumanian textile industry has reached a degree of self supply comparable to that of the wool industry.

SILK

Production

After World War I, the development of Rumanian silkworm breeding was actively promoted. With an output of more than 500 tons, the yield of raw [fresh] cocoons reached its peak in 1929. Since then, a drastic decrease set in prompted by the influence of fluctuating international quotations and a country-imposed monopoly of the cocoon trade. The Banat province particularly, considered the silk production center, lost all significance. By 1935, the cocoon yield amounted to a mere 13 tons. Since then it has picked up somewhat. With the exception of the extraordinary crop of 400 tons in 1939, an average of about 60 percent of the previous output may have been reached.

While in past years about 10 percent of the domestic cocoon crop was exported, this export has ceased entirely since

1934. The entire yield is being utilized in the domestic industry and covers a large part of the demand.

The Banat province is leading in the breeding of silkworms and constitutes at least half of the production or production facilities (mulberry trees). The rest of production is distributed among the adjoining provinces of Old Rumania situated between the Danube and the mountains and four districts of Southern Bessarabia. On this basis, a development of silkworm breeding may be attained speedily. Various measures designed for production increase have been taken with German cooperation.

Manufacture

With domestic silk breeding reduced to a minimum, the boom in the Rumanian silk weaving industry (in 1928 merely 400, but in 1939, 1,900 looms) would not have materialized without rayon. To date, there have only been two Rumanian silk-spinning mills, one in Ialof and one in Giurgiu both of which are unable to increase their capacity. Thus more production plants may be expected. Because of the lack of waste silk spinning mills, waste silk is spun in foreign countries. The capacity of silk weaving plants appears to be adequate for the demand of the country. However, export exists for high-class articles. Bucharest is the seat of the silk weaving industry, where one large plant which also manufactures rayon, three medium and eight small plants are operating. There is one medium sized plant in each of the following towns; Stahisora, Ared, Cisnatie, Jassy and Medias with the latter two each operating one small plant. There are six small plants in Timisoara. In view of a steadily domestic production of silk and rayon, the future for this industry is promising.

Rayon and Staple Fiber

Rumanian depends entirely on import for its rayon supply. Up to 1934, France was by far the leader while only since 1936 did Germany manage to be a close runner-up. Italy was in second place. The sizeable import decrease should be attributed to the establishment of a Rayon plant in Bucharest (1934) which was at first geared to a daily output of 2 tons of rayon. In 1936

Montan Industry [mining industry] established another rayon factory in Lupeni, which has been operating since 1937, and effected another import drop. Its goal was to reach daily output of 10 tons of rayon and 6 tons of staple fiber; in the meantime, its production has already exceeded this quota. Moreover, in 1940 a third factory was founded. Rayon demand, as far as coarser titers are concerned, is easily covered by domestic production. Import needs remain, however, for finer grade yarns and special types of rayon.

In order to expand the cellulose supply, greatly curbed through cession of territory, the following substitutes are being considered, utilization of which is planned by a German and an Italian plant for each product: utilization of maize straw and reed which is particularly plentiful at the Danube delta. The cellulose plant at Stalin is planning experiments on the utilization of hemp and flax waste [or hemp and flax straw].

The import of staple fiber steadily increased and boomed particularly in recent years; here may be pointed out that duty is lower on raw staple fiber than on staple fiber yarns and fabrics. Staple fiber duty rates are computed depending on length of fiber; to 40 millimeters as that of cotton, from 41 to 150 millimeters as that on wool and longer fiber as duty on rayon. In the case of mixed fabrics, up to 30 percent with cotton and to 50 percent with wool, the tariff of staple fiber is the same ^{as} ~~that~~ that of cotton or wool respectively. In the case of fabrics where the percentage of staple fiber exceeds the foregoing, the tariff is that of rayon. Thus, provisions have not been made as yet to consider staple fiber on a par with rayon and it is a significant

that rayon is not considered as raw material for luxury fabrics but only for standard goods. Nevertheless, because of raw material shortages in the cotton region, a mixture of 20 to 30 percent of staple fiber ¹⁵ ~~30~~ required.

COTTON

Production

Experiments to raise cotton date back to the year 1923. Yet, only after the year 1930, was systematically organized, cotton growing developed and this was probably prompted by the necessity of a lack of foreign exchange. Best suited for cotton growing in Rumania is a species originating in India, whose characteristics have been improved under the influence of the Egyptian climate resulting in a staple, the length of which even exceeds that of the Indian species. Cotton ^{possibly this} kind requires sandy, loamy soil with meager humus content such as the territory along the Danube only.

RUMANIA'S COTTON INDUSTRY

(in tons)

<u>Year</u>	<u>Domestic Production</u>	<u>Import</u>
1929	5	3,082
1933	385	6,089
1934	230	7,255
1935	425	6,487
1936	962	10,021
1937	1,612	17,499
1938	2,150	20,145
1939	2,207	14,128
1940	3,405	13,933

Cotton crops have risen steadily in recent years; yet it is improbable that Rumania's cotton demand can appreciably be covered by domestic production through expansion of farming territory and increased yields. Only in particularly favorable years with an adequate number of sunny days can sizeable yields be expected in Rumania, such as those of cotton growing in Mediterranean climate. Thus a great risk must be taken at all times. The same obstacles must be encountered in the newly added province of Transnistria, where as early as the Bolshevik days considerable amounts of cotton were grown with partially satisfactory results. Thus, attempts of "Romanocoton", an organization founded in October 1940 with 5 million Lei, must be appreciated; it set 100,000 hectares for cotton growing as its goal; in this connection the question arises whether this land would not have been more

advantageous for the farming of other plants, which, contrary to cotton would have yielded a higher and more uniform crop.

In order to improve the supply of raw material, 3 leading Rumanian cotton plants are planning the production of heterin. Moreover, a company for the growing and preparation of Pecemessel has been founded. It will profit by the experience recently gained in Germany. This raw material can easily be manufactured in cotton spinning mills and is suitable for the manufacture of fabrics designed to withstand tear and moisture.

Cotton Spinning

Until 1935, cotton import was insignificant. Until that time, cotton yarn import was of importance which, in 1935 with almost 30,000 tons reached a very high mark. This fact bears out -- as in other countries -- the shifting from finished cotton goods import to that of half finished goods. The next step -- shifting from half finished goods to raw material import -- only took place in 1937. This situation is emphasized by the development of cotton spinning: in 1919 only 19,668 cotton spindles operated and only 35,600 in 1928. After the crisis the number rose at first to 55,000 (1934). Until 1937, the number of spindles speedily rose to 228,298 spindles. In 1939, they amounted to 250,416. The Rumanian cotton spinning industry chiefly manufactures yarns to Ne 32, so that only finer or considerably coarser yarns need be imported. The development of cotton spinning may be considered more or less ended in 1939. During the war conversion to Turkish and domestic cotton created considerable technical difficulties; previously, Egyptian or American

cotton had been used to a large extent.

Cluj-Napoca is the center of Rumanian cotton spinning plants with modern equipment with four large and one medium plants, operating a total of 136,000 spindles (more than half of the entire amount of spindles). Moreover, there are one large spinning mill in Jassy and Arad, an medium sized plant in Iasi, Ploiesti and Galati. There are also two small plants in Galati and one in Jassy.

The so-called peasant yarns constitute a major share of the Rumanian cotton yarn import which through farmers' cooperatives are to be distributed to farmers for the domestic manufacture of fabrics. Although this applies only to coarse yarns, to a great extent they were imported until 1938 due to the fact that exporters paid close attention to the demands of their farmer-clientele, delivering especially finished yarns and in some cases even supplying the client with a ready warbeam. The exporter understood the domestic spinner when it came to delivery of these yarns for peasants. This situation, however, has changed since 1938 and the domestic spinning industry is taking care of this field.

Cotton Weaving

After World War I, the Rumanian cotton weaving industry expanded greatly. While in 1925 there were only about 3,500 looms, there were 10,800 in 1931 and 12,000 in 1933. This development continued even during the crisis. A temporary recession set in during 1934 when drastic yarn import restrictions were imposed

handpower weaving mills to operate at capacity. Since 1935, however, due to increased yarn import the number of looms has increased further (1939-14,452 looms). Rumania is easily able to supply the country with what is called standard goods or every-day use fabrics; yet, as far as fabrics of high quality and special articles are concerned, marked import demand remains. The recession of cotton fabric import since 1927 refers particularly to standard goods.

The cotton industry as compared with the wool industry is rather new. Its oldest plant is a big mill founded in Jassy in 1903. Other large plants are located in Bucharest, Buzau, Ivang and Iasi which, except for the latter include spinning and weaving. There are three plants of medium size and several small plants. There is a medium-sized plant in Focsea, Iasi and Stalin small one in the latter town. There are also some small plants in Giurgiu, Giurgiu, Rosiori-de-Vedea and Jassy.

FLAX MILLS

Flax Production

Rumania raises flax throughout the country, particularly in Lessarabia and the Dobruja province. In some sectors, such as the Danube low lands and the Dobruja province, linseed crop is of greater importance than the fiber production. The farming territory dropped from 22,000 hectares in 1930/34 to 12,000 hectares in 1939. In this proportion, the fiber yield dropped. In 1939, about 60 percent of the production came from the territories that remained with Rumania.

Rumania's mechanical flax spinning industry is negligible. Most of the domestic flax is being spun in farmers' homes. These yarns are either further refined and utilized in the home industry or sold to commercial weaving mills.

In recent years, great expansion of flax growing has been planned. In 1940 through the loss of territory farmland sank from 11,381 hectares to 11,572 hectares of farmland; meanwhile, this loss was recovered through the re-consolidation of Bessarabia and Bukovina and the conquest of Transnistria so that rising production may be expected in the years to come. Only Zimnitar had a hemp and flax retting plant for the preparation of fibers. In 1939 with the assistance of the local cooperative a flax retting plant was founded which burned down in the beginning of 1940. Recently, three corporations have been established under German management for further promotion of flax cultivation which have ample funds and which will promote flax growing with growing vigor. In this connection it is interesting to note that new hemp and flax retting plants have been planned in the provinces of each, Dolj and Mehedinzi and that further plants for the preparation of the fiber are under construction.

Hemp Production

Hemp production is of greater importance for Rumania than flax production -- it being geared above all for fiber production. The loss of territory also affected hemp production. According to reports, hemp growing has in the meantime been increased, particularly since Transnistria has area favorable for hemp growing along her rivers. Thus the loss of territory as in the case of

northern Transylvania is more than balanced.

As in the case of flax, the major part of hemp fiber used to be absorbed by the home industry for agricultural and finishing needs; only small quantities of hemp were used for industrial packing was exported. Contrary to this situation, there was an extremely high raffia fiber import (more than 2,000 tons), which used to consist almost to its entirety of sisal and Manila hemp, as well as raffia fiber. In 1940, this import stopped almost entirely due to the war. This could be balanced through domestic production if these were grown in sufficient quantities. In this connection, experiments made on the planting of 5,000 Yucca plants as early as 1939 are of importance; these plants require little and will grow in soil unsuitable for other cultivation. 35,000 more plants were planned for cultivation in 1940. This fiber of these plants can take the place of jute in all instances.

In order to cope with the lack of hemp retting plants, new plants have been built in Vaslui and Vaseni and more of the same kind are planned. There are more hemp retting plants in Siled, Arad, Benta and Pordeanu in Transylvania and the Banat province. The balance is being utilized by the farmers' home industry.

Raffia Fiber Manufacture

In Branesti is a spinning mill for flax manufacture operating 2,238 spindles. For hemp manufacture there are three spinning mills with a total of 3,200 spindles, the majority of these running in a large plant in Jassy, the balance in two medium sized

plants in Bucharest and Iasi. Moreover, there are four jute spinning mills with 4,262 spindles and five sisal spin ing mills. since their output is considerably small, yarns, particularly hemp yarns are imported to quite an extent. The major part of these yarns however, were used by the home industry, which also cover the demands of the rope industry.

Manufacture of linen fabrics to a great extent takes place in combined plants producing cotton fabrics as well. There is one medium sized and two small plants in Bucharest. In addition to these there is a large plant in Iovana and a small one in Timisoara.

Jute import since 1929 strikingly rapidly bears out the fact that the output of the jute industry was sufficient. With the lack of raw material shipments from overseas, the industry converted to the utilization of valonia fiber waste and other exchange material.

Woolen and Knitted Goods Industry

In 1927 the ~~woolen~~^{woolen} and knitted goods industry developed so greatly (because of low capital investments needed) that excepting luxury items, it was able to cover the domestic market. A recession developed during the war years. Subsequent^{to} this period the industry boomed again particularly in cotton jersey and rayon fabrics. Because of high duty, sizeable quantities could only be imported of luxury and special articles, with Germany supplying a major part of these goods.

The woven and knitted goods industry has its seat in Cernauti, except for two large and two medium sized plants, six small and several plants of negligible size in Bucharest. In addition to one large and three medium sized plants there is also a large number of small plants in Cernauti. There is one rather large, two small and several very small plants in Arad. There are two plants of medium and several of small size in Sibiu. Another center is Muresara with two medium, three small, and several plants of negligible size. There is one plant of appreciable size in Iasi, and one small one in each of the following towns: Jassy, Piatra, Neamt, Rasnov and Sibiu. The hosiery industry is concentrated in Cernauti and covers the domestic needs to the greatest extent. Import of luxury hosiery is necessary only for the more demanding populace of cities and large towns. Thanks to high import duty, the hosiery industry developed despite high production costs as the finer grade hosiery depends on imported yarns.

PROSPECTS

As aforementioned, the cession of Northern Transylvania resulted more in the loss of people than losses in the textile industry. In the meantime, this difference has been balanced through the annexation of Transnistria so that the future of the Rumanian textile industry seems promising. In a country, such as Rumania the demands depend largely on the incomes of the farmers who constitute about 30 percent of the population. When the farmer is hard up, he will go without industrially manufactured goods and rather turn to self maintenance. Systematic improvement of

the income situation through stopped up farming will not only result in increased purchasing power but will also keep the farmer and his family so busy on his farm that even during winter time there will be no time for textile home industry. Thus, a decrease in the home industry to the benefit of industrially manufactured goods may be expected.

DEVELOPMENT AND STRUCTURE OF THE TEXTILE INDUSTRY

Contrary to other southeastern countries with hectic situations, the development of Bulgaria's textile industry has rather a steady one. Almost all branches of Bulgaria's textile industry can be traced to the home industry in its beginnings date back to 1834. In those days, the needs of the Turkish armed forces resulted in the establishment of sizeable production centers. Until the liberation of the Turkish regime only few plants existed, which later increased slowly in number. In later years, attempts to establish textile mills were promoted by the industrial promotion measures of 1905 and 1909. Actual development only took place during the past 15 or 20 years. Duty rates issued in 1922 were the basis for prosperous working conditions.

Until the end of the economic world crisis, which hardly affected the textile industry, weaving was developed substantially. Insolvencies of countries acting as intermediary caused by the crisis since 1932 resulted in a drastic import drop. This situation caused another, even stronger industrialization drive which in such textile branches as cotton and wool weaving and the weaving and carded wool spinning industries seemed to get out of

hand, forcing the government to issue an investment and business establishment embargo for these groups in 1936. The main reason for this development was foreign capital, usually invested for short periods (usually Western European) which could not be returned because of foreign exchange restrictions; thus, opportunities for the investment of these funds were sought and to a great extent invested in the textile industry.

Similar to other Southeastern countries, the development of the textile industry brought about drastic changes in the textile import: the import of finished goods decreased greatly and since 1932 the yarn import as well, the latter for the benefit of the increasing raw material import. In 1939, according to net value 40 percent of the total textile import consisted of raw materials and about 30 percent each of half finished and finished goods, which still were imported to a great extent.

During the last 5 years preceding the outbreak of the war, what used to be substantial foreign capital investment in the textile industry decreased greatly and in 1939 amounted to only 30 percent of the total capital; particularly in the cotton industry, Italy is leading.

In 1938, the Bulgarian textile industry operated approximately 400 plants, with more than 30,000 employees. In addition, there are many weaving and knitting plants, i.e. 2,778 plants with 4,736 employees; these plants are using German equipment to quite an extent. This trade uses and always has used above all domestic wool -- similar to the textile home industry.

WOOL

Production

Until 1920, the wool industry used 60 to 70 percent domestic wool; this percentage dropped during the years preceding the war to 20 to 30 percent. Sheep raising in Bulgaria is done chiefly for its yield of milk (cheese made from ewe's milk) and meat and only secondarily for its wool; due to the expansion of territory the stock rose from about 9 million to approximately 13 million head. Little attention has been paid to the quantity and quality of this wool for a long time. Only about 10 percent of B/C grade wool was produced (particularly in the Southeastern part of the country); D/E grade wool constitutes the balance of about 90 percent. Wool manufacture of that used to be considered Bulgaria amounted to about 13,000 tons (wool in the grease) in recent years. Of this quantity, about 11,000 tons were absorbed by the home industry and only a relatively small portion reached the wool industry. In what is now considered Greater Bulgaria wool production is estimated at about 18,000 tons wool in the grease.

In 1931, in order to promote domestic ^a production ₁ protective tariff was placed upon the wool import. Further, a reasonable minimum price equal to international quotations plus duties, etc. was guaranteed the sheep breeder. In order to control wool even better, in 1940 the government-controlled Getreidedirektion received the monopoly for the purchase and distribution of wool to the manufacturer. Recently, cross-breeding of domestic sheep with

German Merino rams has been instituted. Production of these animals, specifically quantity and quality of the wool are expected to be greatly improved by this process. Cross-breeding of 40,000 sheep have been planned. Expecting satisfactory results, the number of sheep for cross-breeding will be considerably increased so that in about 15 years the entire sheep stock would be cross-bred, necessitating an import of 5,000 rams. An increased wool production of 40 to 50,000 tons is considered likely in the near future. This would guarantee ample self-supply for the Bulgarian wool industry and even permit a wool export --- exceeding small amounts of high grade wool which still need importing. Since Bulgaria's absorption of added territories, prospects in this connection are even better provided it will be possible to improve pastures and winter feeding.

In 1926, Bulgaria operated only 15,844 wool spindles, 44,000 in 1936 and 55,000 in 1938, of which 25,000 manufactured worsted and 32,000 carded wool. In 1937, the wool industry had 50 plants, seven of which were wool combing plants, 10 spinning mills, nine weaving mills and 24 combined plants. More than 65 percent of carding wool and more than 80 percent of worsting spindles are concentrated in the Balkans, where skilled craftsmen have been living for centuries. It so happened that the Turks, in order to protect important mountain passes in the Balkans gave certain villages privileges favoring the establishment of the trade. This explains why carded wool spinning has its seat primarily in Gabrovo and Sliven and worsted wool spinning in Gabrovo and Kusanlik. There are small plants in Karlove, Trojan, Sofia, Kustendil, Sanokow, Trevna and Rustaschuk. While carded wool spinning is able to

obtain raw material domestically, high grade worsted wool has to be imported to quite an extent. In 1936 and 1937 Germany was responsible for the major portion of the Bulgarian wool import while in 1938 and 1939 Italy covered the remainder.

Wool Weaving

The wool fabric situation is different with only an insignificant import of high grade qualities since 1931. The domestic industry covers the major part, even in high grade fabrics. Dating back to the days of the Turks, sidele export of Schajeh, a medium-coarse wool fabric and of Hajtans, the latter being used for dress trimming developed. With the infiltration of Western European styles, these products lost greatly in popularity; however, up until 1931 appreciable quantities were exported. Since then, this export has dropped.

The major wool weaving enterprises -- leading firms in the then -- are in Golevo and Sliven. Together with Kralovo and Plovan, more than 70 percent of all wool looms are concentrated in this district, whose total number rose from 767 in 1926 to 1,284 in 1938. Sofia, with a number of major enterprises constitutes more than 20 percent of wool looms. The balance of small plants is distributed among denovo, Trana and Vratscha.

Textile Manufacture

During the Turkish regime the carpet weaving industry came into being depending entirely on domestic raw material. Industrial

carpet weaving has decreased in recent years with only few plants left in Panna, "Sicote, Kovel and Tschuprovetz. Recently, the carpet center in Pirov which used to belong to Yugoslavia came under the Bulgarian government. A carpet industry designed for export and tourist trade and based on the domestic tradition could gain major importance.

SEE

Production

By 1939, Bulgaria with a cocoon production of 1,400 tons, stood in fourth place in the international silk industry. This position has been shaken through the annexation of territory. Promotion of silk manufacture has been attempted for a long time: in 1924, Kambintov's firm succeeded in starting a bank [Farmers' and Union Bank] took over the monopoly of cocoon purchase. The productivity of agriculture was assured through the stabilization of prices. Other promotional measures were added. 1939 and 1940 saw considerable production. While the war brought about a temporary production drop, rising yields may be expected in future years.

YUGOSLAVIA COCOON EXPORT AND SILK PRODUCTION (SILK QUANTITIES IN TONS)

(in tons)

Year	Cocoon Yield	Raw Silk Manufacture
1931	1,118	90
1934	1,400	136
1935	1,400	136
1936	1,410	136
1937	1,630	180
1938	2,100	161
1939	2,543	--

Cocoon export has fluctuated greatly. Since 1938, however, it has dropped sharply, which meant an increase in the domestic raw silk production. Until 1932, considerable quantities of silk yarn were imported as an exchange commodity for cocoon export, destined particularly for Italy; this situation ceased completely at a later date. Since 1938, the capacity of the silk industry has been approximately on the same level with cocoon production so that, with this industry working at full capacity, cocoons are being exported only now and then depending on the annual yield.

Major sericultural regions are the vicinity of Stara Zagora, with a yield of about 900 tons; Harmanli, Svilengrad, and Maskovo in the Southeast and Gevergi and Strumitra in the Southwest. The annexation of ~~Thrace~~ ^{Thrace} and Macedonia has increased cocoon production by 1 to 2,000 tons, estimating normal

annual yields. In recent years, due to war condition, sericulture in these regions has decreased.

With a lively Central European market, it may be assumed that the export of cocoons and silk products is of considerable importance to what is now Greater-Bulgaria. Besides, sericulture has always been important to Bulgarian agriculture. The greatest amount of work required by sericulture falls in the second half of May and in June. During this period general farming does not require a great deal of time. The total amount of work required is not more than about 40 to 50 days a year. Since 1939, the number of sericultural plants in Old Bulgaria has increased from 70,000 to 100,000. Cocoon drying plants are distributed throughout the country while with the cooperation of the Land Wirtschafts- und Genossenschaftsbank four large refrigeration plants have been built to store cocoons during the winter. [sic]

Manufacture

In 1921, silk spinning mills totalled only 10 spinning vats. In 1930, there were 254. Since then, a considerable number of silk spinning mills have been founded, located chiefly in the sericultural regions of Vratsa, Stara Zagora, and Svilengrad. It was established, however, that the capacity exceeded present silk yields and that the market for silk products has decreased. Thus, the number of operating silk spinning mills decreased from 45 to 15. With the annexation of Greek and Yugoslavian territories, idle plants resumed operations.

The silk weaving industry operates approximately 450 looms, which not only are fully occupied during the war but also manufacture goods for export. This branch is concentrated in Sofia with several plants operating. Furthermore, there are silk weaving plants in Karlovo, Ilfov, Iv, Sliven and ~~Plodiv~~ ^{RUSIA}.

High duties protect the Bulgarian silk industry. Handing rayon has for a long time assured continued demand for silk goods notwithstanding the fact that rayon is best suited for the purchasing power of people in the lower income brackets. Efficient improvement and selection of cocoons could result in extensive improvement of the quality of Bulgarian natural silk, as is done in other countries. This process and its results would guarantee successful export.

BULGARIA'S SILK PRODUCT EXPORT AND RAYON IMPORT
(in tons)

Year	Export of Cocoons,	Import of	Year	Export of Cocoons,	Import of
	Silk-waste and Silk Yarns	Rayon Yarns		Silk-waste and Silk Yarns	Rayon Yarns
1922	272	1	1932	149	8
1923	458	4	1933	394	4
1924	331	23	1934	62	4
1925	705	47	1935	149	8
1926	648	56	1936	52	18
1927	559	151	1937	66	16
1928	887	170	1938	194	39
1929	712	25	1939	220	46
1930	506	13	1940	181	
1931	406	14			

RAYON AND STAPLE FIBERS

In 1932, a rayon plant was founded but had to close again in 1934 due to lack of funds. With the country's abundance of cotton, a first rate basis for raw material is given for the manufacture of rayon and the establishment of a rayon and staple fiber plant is contemplated and will be put into effect under Italian management.

In order to protect the natural silk industry, very high tariffs have been imposed on rayon import, curbing the latter to a minimum, a case singular in the Southeastern countries.

In former years, Bulgaria hardly used staple fiber at all. At the present time, an admixture of staple fiber to yarn is permitted at an unlimited ratio and even required to 30-50 percent.

COTTON

Production

Cotton growing was at first developed by a leading cotton mill in Varna and in 1931 with government assistance developed even more. In 1936, Getreidedirektion also received the monopoly for cotton purchasing. This covered about 60-70 percent of the production; the balance was used by the farmers for their own needs. This picture has changed in the meantime to the benefit of the industry. Bulgarian cotton is known for its purity

and good color and lends itself to the spinning of yarn up to No 24. By switching from domestic to qualities from overseas it is expected that high quality long stapled cotton will be produced domestically limiting in part to a relatively small amount of particularly fine, special type cotton. The newly absorbed territories in the South lend themselves particularly for growing of long stapled qualities.

BULGARIA'S FARMLAND, YIELD IN HECTARES AND COTTON PRODUCTION (SEE SCRIPT NO 16)

Year	Farmland in 1,000 hect- ares	Hectare Yield in dozens	Production in tons (ginned)	Year	Farmland in 1,000 hect- ares	Hectare Yield in dozens	Production in tons (ginned)
			270	1933	20.5	1.2	2,395
1924	2.1	1.3	448	1934	30.0	2.0	6,000
1925	2.9	1.5	501	1935	35.0	2.3	8,100
1926	3.0	1.7	750	1936	50.0	2.1	10,700
1927	5.2	1.5	697	1937	51.0	2.0	10,000 (Drop
1928	5.3	1.3	906	1938	55.0	1.3	7,000 through
1929	5.6	1.6	813	1939	47.0	2.2	10,300 drought)
1930	5.5	1.5	899	1940	71.5	--	--
1931	5.5	1.6	1,302		(planned)		
1932	8.0	1.6					

In former years, the cotton industry was sizeable and reached its peak in 1928 with 12,000 tons.

In order to supply Bulgaria with cotton, about 150,000 hectares of farmland are required. Only 60,000 hectares have been available in recent years. The southern Dobruja province, which is well suited for cotton growing, has added about 1,100 hectares, the Vardar valley about 5,500 hectares (about 2,500 tons production), and ~~Thrace~~ ^{Thrace} and Macedonia about 15,000 hectares (6,500 tons production). Due to war conditions, cotton growing has dropped 50 percent in the new Western and Southern territories but it can be expected to return to normal soon. While Bulgaria gained 27 spinning plants through the absorption of ~~Thrace~~ ^{Thrace} and Macedonia, it must be noted that Serbian farmers usually spin their own cotton and to some extent use it for their own needs.

With opportunities for the development of production in the recent outstanding cotton growing territories, such as the Krizva Valley and the neighborhood of Tirmovo, the efficient cooperation of the government expressed in fixed prices and a guaranteed market as well as the efficiently performed work in the experimental stations of Cirpan and Sardofo are these factors are of great importance. Thus it can be expected that Bulgaria will not only soon be able to supply its own cotton but also to produce enough for export. This, however, would mean a sacrifice of farmland otherwise utilized for essential farm produce.

Cotton Spinning

Simultaneously with the marked increase in cotton production and import came a quick development of the cotton spinning industry. The number of spindles rose from 20,450 in 1926 to 180,000 spindles in 1938. While a considerable amount of cotton yarn was imported prior to 1932, it dropped greatly with the expansion of the spinning industry.

The yarn still being imported prior to 1937 came from what was then considered Austria and Czechoslovakia as the leading exporting countries. Since 1938, Italy has gained importance in this connection, which may be attributed to the substantial Italian investments in leading Bulgarian cotton enterprises.

The most important cotton spinning mills (since the first foundation of such a plant in 1897) are in Varna, a town favored by an accessible location import port for raw cotton). A great number of small cotton spinning mills were called into existence by the need arising from raw material production in the leading cotton growing territories of Stara Zagora, Plovdiv and Khaskovo. The Central Balkan territory, i.e., Gabrovo, Karlovo, Sliven and Yambol, may be mentioned here together with a number of small cotton plants.

Cotton Weaving

In prewar years, Sofia gained major importance as the seat of the cotton industry through the establishment of several large plants.

The number of looms rose from 1,279 in 1926 to about 4,000 in 1939. Based on facts such as the import embargo of the middle of 1938 on coarse cotton yarn and cotton fabrics, and compared with the market of Old Bulgaria, the cotton industry was overexpanded. This situation is borne out by the acceptance of sizeable work contracts and also by the fact that the cotton weaving industry since 1937 has utilized only 40 percent of its capacity. Thus, import was limited to small quantities of high-grade articles which came chiefly from Germany. Considering the annexation of new territory, the situation of the Bulgarian cotton industry appears greatly improved thanks to not only a better raw material supply but also to increased demand.

RAFFIA FIBERS

Flax Production

For a long period of time, flax growing has been neglected greatly in Bulgaria; in recent years, however, it has been promoted not only in order to obtain fiber but also linseed oil. Since 1940, Getreidedirektion has handled the monopoly on flax buying. Drastic attempts have been made to expand the farming area, particularly in Southern Dobruja. Suitable seeds have been made available. Germany is actively assisting this drive to step up Bulgaria's flax production.

Hemp Production

In Bulgaria, hemp is not grown to the same extent as in other Southeastern countries. Nevertheless, the industry is able to

supply the need of the country. To the greatest extent, hemp was utilized in the home industry for agricultural articles which proved more or less uneconomical. For this reason and to guarantee efficient production, the country has also in this case issued measures, governing the market and forcing the farmer to turn over the hemp at stabilized, adequate prices.

BULGARIA'S HEMP PRODUCTION (SEE MS NO 16)

<u>Year</u>	<u>Fiber</u> <u>Tons</u>	<u>Year</u>	<u>Fiber</u> <u>Tons</u>
Average 1907/11	995	1936	3,300
1921	933	1937	4,600
1934	2,700	1938	4,100
1935	3,400	1939	6,600

There is ample room to step up Bulgaria's hemp production. The Southern part of Dobruja gained appreciable farming territory. A new market and new potentialities have been opened up for hemp through its usage as admixture with jute and as an exchange article for jute and other types of hard fiber. Getreidedirektion, which since 1940 has also the buying privileges of hemp, has with German assistance contemplated the expansion of farmland and the improvement of the species of high grade seeds, resulting in more plentiful yields. Expansion opportunities are particularly good in Northern Bulgaria and the Dobruja province. Because of a lack of plants for the preparation of hemp, modern hemp retting plants have been built recently. Moreover, the Bulgarian raffia fiber industry owns another

five hemp and flax retting plants in the Southern part of the country in addition to which a number of plants have recently been opened in hemp and flax growing centers (the Struma, Maritza, and Jantra valleys). Until recently, the hemp and flax industry had little significance because of a large portion of finished products being manufactured by the home industry. Plants manufacturing goods of hemp and flax are located in Vratsa, Ruse, Pleven, Varna, Provadia, Gabrovo, Pasardjik and Sofia. The equipment consists of about 1,000 spindles and 200 looms for flax, hemp, jute, etc. Besides, there are ten large rope-making plants. There are opportunities for the expansion of the domestic raffia fiber industry, particularly in view of experiments made in the Maritza valley with the growing of Abutilon, a fiber plant similar to jute and because of recent attempts to obtain a fiber (Gelsofil) from the bark of the mulberry tree.

Since 1932, flax and hemp import as well as goods made from these fibers has been negligible; nevertheless, until 1939 considerable quantities of yarn have been imported.

BULGARIA'S IMPORT OF RAFFIA FIBER AND ITS PRODUCTS
(in tons)

<u>Year</u>	<u>Flax and Hemp</u>	<u>Jute</u>	<u>Flax and Hemp Yarn</u>	<u>Jute Yarn</u>	<u>Flax and Hemp Fabrics</u>	<u>Jute Fabrics</u>
1922	319	2	107	54	218	986
1923	388	-	476	167	585	1,391*
1924	154	-	623	291	527	1,197
1925	145	56	677	748	442	1,241
1926	235	2	-	274	325	599
1927	295	6	179	559	202	453
1928	481	78	231	975	165	496
1929	563	95	288	1,753	149	714
1930	331	96	280	1,190	73	131
1931	61	156	363	1,839	61	93
1932	53	394	321	1,213	15	64
1933	91	416	111	934	17	21
1934	47	406	105	657	23	53
1935	98	518	189	40	36	17
1936	42	528	266	137	52	46
1937	33	848	365	62	46	52
1938	20	748	255	105	85	30
1939	14	644	245	14	125	21
1940	-	-	48	-	-	241

While the import of jute fabrics decreased greatly, the import of jute rose considerably since 1931. Only yarn import was able to maintain its relatively high level until 1934; in recent years also this import has decreased greatly.

THE KNITTED AND WOVEN GOODS INDUSTRY

In Bulgaria, also, the knitted goods industry [jersey and hosiery industry], in size and significance, is in third place after the cotton- and wool industry. With the exception of two leading hosiery factories, there are numerous medium and small plants, most of them located in Sofia and Gabrovo. The knitted and woven goods industry was as based on data of previous market conditions, overexpanded; this condition, however, will be alleviated by the needs of the additional population of newly annexed territories. There is demand only for import on a small scale, chiefly of high grade goods, such as jersey and knitted goods, particularly of hose and fabric gloves.

PROSPECTS

The expansion of land has opened up new opportunities for the Bulgarian textile economy -- not, however, regarding its industry as mentioned beforehand -- as this industry in Old Bulgaria had been overexpanded -- but above all for the production of raw material and the market for it.

ALBANIA

Albania does not have what is actually called a textile industry, because its raw materials, such as wool and silk, are utilized by the farmers for their own needs.

In recent years, Italy has been instrumental in the development of Albania. However, due to her structure, major difficulties were encountered in Albania, caused particularly by transportation difficulties. With a stock of about 5 to 6 million head of sheep, considerable amounts of wool should be obtained which could, if carried out systematically, yield about 3 million kilograms. Yet Italy succeeded in obtaining a yield of only 600,000 to 700,000 kilograms of wool in recent years. German circles as well have been interested in the problem of this wool crop, on the idea of obtaining raw material from Albania in exchange for consumer goods. The sheep stock, as compared with Albania's population, is extraordinarily high, promising opportunities of wool export on a large scale, provided the problem of this wool crop can be overcome and the transportation difficulties solved.

Sericulture can be found chiefly in coastal areas. However, the mulberry trees are in need of attention and horticultural care. Furthermore, sericulturists should be provided with high grade material for the breeding of new, productive species and be given an agreement granting consumer demands at reasonable prices.

During the period of the Italian regime, cotton was grown along the climatically favorable coast and about 100 hectares were cultivated successfully. Expansion of this farmland would easily

be possible by turning the fertile swamps into farmland, thus creating vast territories for cotton growing.

Generally, transportation-wise and industrially speaking, Albania is the least developed country in the Southeast and thus far behind the average country in many respects. Under German economic planning it may be expected that it will develop greatly in the near future; this would not only provide the Albanian people with cheap consumer goods in quantity, but also promise a prosperous market for the domestic raw materials, a development which would raise Albania's prosperity greatly.

E N D