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Cite as: AIP Conference Proceedings **2430**, 040007 (2022); https://doi.org/10.1063/5.0077209
Published Online: 24 January 2022

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Problems of Light Industry Development in The Republic of Belarus In the Context of Global Trends

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Abstract. The article is devoted to one of the significant problems of the textile and light industry of the Republic of Belarus, associated with a shortage of high-quality raw materials and materials of domestic production, dependence on imports, which causes the industry to lag behind world trends. The identified causes of the existing problem showed that it is cross-sectoral in nature, and the possibility of its solution lies in the creation of vertically integrated structures in the technological chains "agriculture – leather industry – footwear industry" and "agriculture –linen mills– linencloth production".

INTRODUCTION

Currently, domestic light industry organizations face a number of difficulties caused by a set of internal and external reasons. A common problem for all organizations, regardless of the type of activity, is the shortage of quality raw materials and materials of domestic production, despite the fact that the country has its own raw material base for the leather and footwear industry and the production of linen fabric. The low quality of domestic raw materials forces organizations to use imports, which significantly increases the cost of the final product, making it noncompetitive in terms of the price factor in the both foreign and domestic markets, negatively affecting the economic indicators and hindering the innovative development of manufacturers. The problem of lagging textile and light industry behind world trends is also relevant for Russia and Kazakhstan [1, 2, 3, 4].

MATERIALS AND METHODS

The article is based on the study of statistical data on the state of global and domestic light industry collected for a period of years, expert surveys of leaders and specialists of industry organizations, materials obtained in the course of desk research on global footwear, clothing, fabric markets and opinion polls of consumers in Russia and Belarus.

RESULTS AND DISCUSSION

Light industry is a significant industry for the world economy, its contribution to world GDP during 2017–2019 was more than 2%, and retail sales of clothing and footwear in the world exceeded US $1.5 trillion (Table 1).

International Conference on Textile and Apparel Innovation (ICTAI 2021)
AIP Conf. Proc. 2430, 040007-1–040007-6; https://doi.org/10.1063/5.0077209
Published by AIP Publishing. 978-0-7354-4175-0/$30.00

TABLE 1. Contribution of light industry to the world economy.

Indicator	Years				
	2017	2018	2019	2020	2030 (forecast)
Retail sales of the global apparel and footwear market, trillion US $	1,7	1,8	1,9	1,5	3,3
Retail sales of the global apparel and footwear market, %	104,2	105,88	105,56	78,95	122,22
World nominal GDP, trillion US $	80,715	85,687	87,21	83,253	n/d
World GDP growth rate,%	106,47	106,16	101,78	95,46	n/d
Share of sales of clothing and footwear in world GDP,%	2,106	2,101	2,179	1,802	n/d
Worldpopulation, billionpeople	7360,1	7435,8	7513,3	7588	8500
Worldpopulationgrowthrate,%	101,12	101,03	101,04	100,99	107,13
Ratio between the growth rate of retail sales of apparel and footwear and the growth rate of the global population	1,03	1,048	1,045	0,782	1,141

Source: authors' databased on [5, 6, 7].

Moreover, as it can be seen from Table 1, the growth rate of the clothing and footwear market exceeds the growth rate of the world population. If the world population in 2017–2019 grew annually by just over 1%, the annual growth of clothing and footwear sales during this period amounted to 4–5.5%. Despite the slowdown in global GDP in 2019 (an increase of 1.78%), the clothing and footwear market has seen a significant growth of 5.56%.

At the same time, as can be seen from Table 1, it is the clothing and footwear market that has suffered most as a result of COVID-19. The pandemic caused this market to fall by more than 21%, especially in the fashion industry (over 70%), while global GDP fell by 4.54%. Despite this, according to experts' forecasts from the world's leading marketing agencies, in 2030, retail sales of clothing and footwear in the world will reach 3.3 trillion US dollars.

TABLE 2. Indicators of the functioning of the light industry of the Republic of Belarus for 2015–2020.

Indicator	Years					
	2015	2016	2017	2018	2019	2020
Number of organizations in the industry, units	1936	1889	1927	1933	1952	н/д
Production of light industry goods, million US dollars	1624,2	1628,4	1906,0	1955,7	1895,6	1571,2
Share of production of industry goods in GDP,%	2,87	3,41	3,48	3,28	3,00	2,61
Growth rate of production of industry goods,%	-	100,3	117,0	102,6	96,9	82,9

Source: authors' data based on [8, 9].

The volume of production of light industry goods in the Republic of Belarus does not exceed USD 2 billion, and in 2019 compared to 2018 there was a decrease in the production of these goods by 4.1%, and in 2020 the decrease was 17.1%. The production of light industry goods in the country's GDP during the period under review ranged from 2.6 to 3.5%, which is 0.6–1.5 p.p. higher than the global indicator. However, since 2018, there has been a decrease in the contribution of light industry in the country's GDP. The share of production of industry goods in the country's GDP in 2020 compared to 2018 decreased by 0.67 p.p. and amounted to 2.61 p.p.This situation is due to a decrease in physical volumes of production for most light industry goods in the Republic of Belarus, despite the fact that in the world over the past ten years, the production and sale of light industry goods has increased (Table 3).

TABLE 3. Dynamics of production of light industry goods in the Republic of Belarus for 2012–2019.

Indicator	Years								
	2012	2013	2014	2015	2016	2017	2018	2019	Growth rate 2019/2012,%
Fabrics, million m^2	184	181	166	155	160	177	177	166	90,2
Bed linen, thousand pieces	8052	8 374	7103	5 569	5 523	6 206	6 015	6 419	79,7
Carpets and rugs, million m^2	12,9	15,4	18,7	18,6	20,0	22,6	24,0	22,0	170,5
Cord fabric for tires, million m^2	70,0	58,0	46,8	39,4	51,2	50,4	47,4	37,6	53,7

TABLE 3. Continued

Indicator	Years								
	2012	2013	2014	2015	2016	2017	2018	2019	Growth rate 2019/2012,%
Knitted goods, mln. pcs.	63	61	51	43	46	46	48	51	81,0
Coats, raincoats, jackets, windbreakers and similar products, except for knitwear, thousand pcs.	2 341	2 042	2 003	1 803	1 817	1 695	1 557	1 456	62,2
Suits and sets, except for knitted wear, thousand pcs.	2 017	1 760	1 510	1 229	1 134	1 155	1 066	963	47,7
Trousers, overalls, breeches and shorts, except for knitwear, thousand pcs.	2 049	1 736	2 195	1 787	2 071	1 848	2 078	2 303	112,4
Corsetry and parts thereof (including knitwear), mln.	20,0	21,8	19,2	12,6	13,7	19,5	18,9	16,9	84,5
Leather gloves, mittens and mitts, thousand pairs	371	257	214	140	84	86	134	90	24,3
Hats, berets and other felt headdresses, thous.	53	27	33	13	16	29	38	53	100,0
Items, clothing accessories and other products made of natural fur (except for hats), thousand pcs.	87,1	78,1	78,1	30,4	25,3	26,5	18,0	22,0	25,3
Hosiery, millionpairs	134	137	140	139	155	172	168	168	125,4
Leather, tanned and dressed, mln.dm^2	520,2	461,0	499,3	519,4	502,0	494,6	444,5	430,7	82,8
Bags for women and men, thousand pcs.	700	776	672	491	546	540	561	622	88,9
Shoes, million pairs	16,2	15,9	14,0	10,7	10,0	10,7	11,4	9,3	57,4

Source: authors' data based on [8].

As the Table shows, the decrease in production occurred in the country in 2019 compared to 2012 in almost all light industry goods, with the exception for carpets and rugs, trousers, overalls, bridges, shorts and hosiery.

The production of suits and sets decreased by 2.09 times, the production of footwear by 1.74 times, the production of coats, raincoats, jackets, windbreakers and similar products by 1.6 times, by 3.9 times – the production of items, clothing accessories and other products made of natural fur, by 19% –production of knitwear and by 9.8%–production of fabrics. This situation is due to the fact that domestic manufacturers cannot compete with foreign manufacturers in the domestic and foreign markets.

In 2020, the TOP-10 countries of manufacturers and exporters of clothing and fabrics included countries such as China, Germany, Bangladesh, Vietnam, India, Italy, Turkey, USA, Hong Kong and Spain [5]. TOP-10 countries of manufacturers and exporters of footwear were China, India, Vietnam, Indonesia, Brazil, Turkey, Pakistan, Bangladesh, Mexico and Italy [5, 10]. More than half of the global production of light industry products is concentrated in China, in particular: more than 52% of clothing, more than 52% of fabric and more than 55% of the production volume of footwear, about 25% of natural leather. China's light industry is mainly focused on the middle and low price segments of consumers. The production of luxury and premium class goods is concentrated in the EU countries (France, Italy, Spain, Germany) and the USA.

The Republic of Belarus owns an insignificant share in the world production of light industry goods, with the exception of linen. According to BusinesStat, the country is in the TOP-10 manufacturers of linen fabrics with a share of about 7–8% in the world production volume (Table 4). This is due to the fact that 80–85% of flax is grown in Europe, and the use of flax fiber is only 1–1.5% of all textile fibers consumed in the world.

TABLE 4. Dynamics of production volumes of linen fabric in the world and the Republic of Belarus.

Indicator	Years				
	2016	2017	2018	2019	2020
World volume of linen fabric, thousand tons	73,1	78,8	91,7	90,9	72
Growth rates of world production of linen fabric,%	–	107,80	116,37	99,13	79,21
The volume of production of linen fabric in the Republic of Belarus, thousand tons	5,29	5,5	6,21	6,15	5,75
Growth rates of production of linen fabric in the Republic of Belarus,%	–	103,97	112,91	99,03	93,50
Share of the Republic of Belarus in the world production of linen fabric,%	7,24	6,98	6,77	6,77	7,99

Source: authors' data based on [6].

The period from 2016 to 2018 is characterized by an increase in the global production of linen fabrics from 73.1 thousand tons to 91.7 thousand tons. Starting from 2019, the global production of linen fabrics decreased by 1%, and in 2020 it decreased by 18%. It should be noted that a similar trend is typical for the production of linen fabric in the Republic of Belarus, with the exception of 2020, when the decline in production volumes was significantly lower compared to the global indicator – only6.5%.

The contribution of the Republic of Belarus to the world production of other light industry goods such as clothing, footwear, woolen, cotton, synthetic fabrics is insignificant. In contrast to the linen industry, the country's contribution to world footwear production is about 0.04% (Table 5).

In 2019 the global production of footwear amounted to 24.3 million pairs, while only 9.3 million pairs of shoes were produced in Belarus, which corresponds to 0.038% of world production. In addition, in 2019, there was a significant drop in the production of footwear in Belarus – by 18.42%, which was due to a warming climate, a decrease in real incomes of the population and an increase in the popularity of textile footwear. At the same time, leather footwear accounts for more than 65% of the production of domestic footwear while in global production the share of leather footwear is 38% and textile footwear prevails in the structure of world production (47%).

The indicators of the functioning of the light industry and the results of surveys of end consumers in Russia and Belarus indicate that in most cases domestic goods are inferior to foreign counterparts in terms of quality and price characteristics. Surveys of leaders and specialists of textile and light industry organizations showed that domestic manufacturers are faced with a number of difficulties caused by a complex of internal and external reasons, such as: shortage of high-quality domestic raw materials, high dependence on imports; significant technical and technological lag behind the world's leading manufacturers; ineffective management and marketing activities, market fluctuations, etc.

TABLE 5. Dynamics of the production of footwear in the world and the Republic of Belarus.

Indicator	Years				
	2015	2016	2017	2018	2019
World footwear production, million pairs	22930	23030	23500	24200	24300
Growth rates of world footwear production,%		100,44	102,04	102,98	100,41
Volume of footwear production in the Republic of Belarus, million pairs	10,7	10	10,7	11,4	9,3
Growth rates of production volume in the Republic of Belarus,%	-	93,46	107,00	106,54	81,58
Share of the Republic of Belarus in world footwear production,%	0,047	0,043	0,046	0,047	0,038

Source: authors' data based on [8, 5].

The most significant and urgent problem for domestic enterprises in the textile and light industry is the shortage of high-quality raw materials and materials of domestic production and, as a result, high dependence on imports.

Sub-sectors of the textile and light industry can be conditionally divided into two groups. The first group is sub-sectors that do not have their own raw material base. These include the production of cotton, woolen, synthetic and other fabrics, the garment industry. To carry out their activities, these sub-sectors are forced to import raw materials and materials which negatively affects the cost of finished products.

The second group is the sub-sectors for the production of products, which have a domestic raw material base. This group includes the linen and leather and footwear subsectors. It would seem that the production of raw materials in

the country should provide enterprises in these subsectors with competitive advantages associated with lower logistics costs, reduce the impact of the global market environment, and ensure greater output and sales of products with high added value. In the meantime, the RUPTP “Orsha Linen Mill” (the only manufacturer of linen fabric in the country) and shoe enterprises lack raw materials and high quality materials, and are also forced to import them.

Let's consider the current situation in more detail. Flax, grown by agricultural enterprises, is processed at 41 linen factories, but RUPTP “Orsha Linen Mill” is experiencing a systematic deficit in flax fiber of high numbers from No. 12 and above, it is this flax fiber that the linen for clothing is made from. From year to year the situation is worsening, in 2015 in the structure of domestic flax fiber supplies, fiber No. 11 accounted for about 70%, fiber No. 12–23%, and fiber No. 13 and above accounted for 2%. Then, since 2016, the share of long fibers in the structure of domestic fiber supplies has been constantly decreasing. So, in 2019, the share of fiber No. 11 was already 42.2%, the share of fiber No. 12 was 7%, and fibers No. 13 and above were not supplied. Thus, the average number of flax fiber supplied to RUPTP “Orsha Linen Mill” decreased from 11.22 in 2015 to 10.54 in 2019.

The reason for this state of affairs is that flax factories are not economically interested in supplying flax fiber to the flax mill at purchase prices set by the state. To maintain their financial position, they export part of the fiber produced at more attractive prices. Currently, the main regulatory document governing the formation of prices for flax products is the Decree of the Council of Ministers of the Republic of Belarus dated September 29, 2007 No. 1233 "On the specifics of pricing for flax products"(with amendments and additions). In accordance with it, a marginal level (standard) of profitability in the formation of purchase prices for flax trust in the amount of up to 30%, flax fiber –up to 15% of the cost price is established. By separate decrees of the Ministry of Agriculture and Food of the Republic of Belarus, the cost of flax fiber may be reduced in price at the expense of state needs (Decrees No. 23 dated 04/12/2021 established the amount of cost reduction for flax fiber supplied for state needs in 2021).

In addition to problems with the length, domestic flax fiber is of poor quality, due to high rigidity, different shades due to different degrees of flax ripening and violation of the technology of its cultivation. Agricultural enterprises do not consider flax as a strategically important product; in some cases, flax is sown on unsuitable soils. Therefore, the yield of flax straw in the Republic of Belarus averages 3.5 tons per hectare, while the European producers of flax straw (France, Belgium, the Netherlands) yield 6–7 tons of flax straw per hectare. At the same time, the yield of long fiber from European flax straw is 22.5%, and from domestic flax straw is 5.0–5.8%.

The leather and footwear industry also has its own raw material base. For the production of natural leather, there are three tanneries in the country, two of which are Minsk Industrial Leather Association and Bobruisk Tannery produce leather for the production of shoe uppers.

Since 2007 Belarus has been banning the export of unprocessed skins of cattle. In 2019, the Government introduced a temporary ban on the export of unprocessed cattle skins from Belarus outside the customs territory of the Eurasian Economic Union and licensing the export of tanned leather (Decrees of the Council of Ministers of the Republic of Belarus No. 334 and No. 335 of May 25, 2019). In accordance with these decisions, all unprocessed hides of cattle and tanneries are obliged to redeem from meat processing plants at state prices. The volume of the supplied skins is sufficient to fully utilize the capacities of tanneries and the production of leather in the volumes consumed by the footwear industry of the country, but the quality of the raw hides is in most cases unsatisfactory. During the processing of skins on the front surface of the semi-finished product, a large number of raw material defects, obtained during the life of the animal, such as sores, fistulas, whips, scab, roughness, thinness, etc. Therefore, in the structure of finished products of domestic tanneries, the share of low-grade leather materials (IV–VII) is about 40–60%, and the proportion of leather of I and II grades rarely exceeds 20%. A significant share in the structure of finished products is taken by semi-finished products and crust (40–65%). These products are leather materials with an unfinished processing cycle (the final processing stage associated with finishing the front surface is partially or completely absent). In this form, these leather materials cannot be used directly for the manufacture of shoes and require additional processing. The remaining 30–40% in the structure of finished products of domestic tanneries is occupied by finished leather for the upper part of shoes, while they are highly differentiated by items depending on the quality characteristics and the target destination. About half of the finished leather for the upper part of the shoe are leather with a ground and polished front surface, split leather with a coating. These leather items are used in the production of only certain types of footwear (children's, every day, social, work, etc.) intended for consumers in a low price segment. Therefore, enterprises specializing in the production of fashionable footwear and premium footwear, for which the appearance and quality of leather goods are shown decisive influence on consumers demands, cannot fully satisfy their needs in domestic leather and actively cooperate with foreign suppliers. Thus, if the country has a sufficient amount of raw materials for leather production, the quality structure of finished products does not allow meeting the needs of the footwear industry.

CONCLUSION

Obviously, the problems in providing enterprises of the textile and light industry with high-quality raw materials in sufficient quantities lie not only in the plane of the industry, but in many respects the solution to this problem depends on the agricultural sector. Currently, there is an imbalance of interests between agricultural enterprises producing raw materials, processors and manufacturers of finished products, between Bellegprom Concern and the Ministry of Agriculture and Food of the Republic of Belarus. It should be noted that the idea of creating a horizontal leather holding company, suggested by the chairman of Bellegprom Concern in April 2021, will not fundamentally solve the problem.

To ensure the competitiveness of goods in the textile and light industry, it is necessary to ensure the interest of each entity in the production chain in the end result. One way to solve the problem is to create vertical integrated structures in the form of production associations or holdings: "agriculture –leather industry – footwear industry" and "agriculture –linenmills– production of linen fabric." World experience shows that in vertically integrated structures, the development of a single strategy and development goals for its subjects is ensured, financial resources are concentrated on solving the most important tasks, the solution of which will contribute to overall success, and there is an alignment of the technical and technological level due to a unified investment strategy.

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