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Rising Apparel Exports of Bangladesh: Some Exploratory Observations

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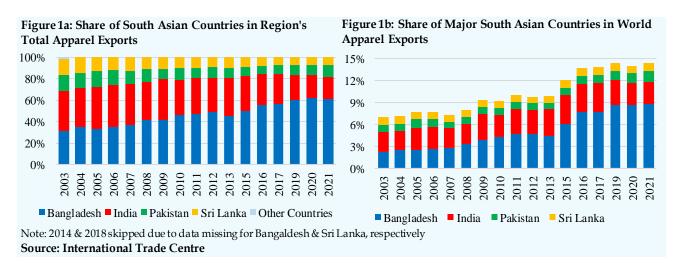
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I. Introduction

Apparel is one of the leading consumer goods manufactured and traded globally. Between 2001 and 2021, global apparel exports have almost tripled, increasing from US\$ 185 billion to US\$ 506 billion. Due to labor-intensive nature of manufacturing, apparel industry is widely located in the developing countries. In the last two decades, the developing market economies, including China, Bangladesh, Vietnam, Turkey, and Pakistan, had a share of 69 percent in global apparel exports, as opposed to 30 percent share of the developed economies.

Within the developing economies, share of South Asian Association for Regional Cooperation (SAARC) in global apparel exports has risen from 6.2 percent in 2001 to 14.4 percent in 2021. Among the member countries, Bangladesh has captured the largest share. Since the turn of the century, its share has risen substantially in the region, as well as in the world (**Figures 1a & 1b**). Surpassing its peers, the South Asian country is now known as a garment manufacturing and exporting powerhouse in the world—second only to China.³ On the other hand, regional shares of Pakistan, India, and Sri Lanka have contracted over the last two decades; while their global shares have either remained stagnant (in case of Sri Lanka), or increased not as impressively as Bangladesh's (in case of Pakistan and India). Global share of Bangladesh rose from a little over two percent in early 2000's to 8.8 percent in 2021; whereas, shares of Pakistan and India went up from around one percent and two-and-a-half percent to 1.6 percent and 3.0 percent, respectively, over the same timeframe.



The wedge between Bangladesh and its regional peers is also reflected in terms of apparel exports per capita and absolute exports of the consumer good (**Figures 2a and 2b**). Since early 2000's, per capita apparel exports of Bangladesh, while comparable to Sri Lanka, grew starkly apart from the trajectories of India and Pakistan. In absolute terms, Bangladesh is the only country showing sustainable rising trend in the period, with annual apparel exports hovering around US\$ 40 billion in 2019-2021.

Bangladesh, a least developed country with almost non-existent textile and apparel industry prior to 1980's, managed to achieve exponential growth in garment exports over the last three to four decades. Not only that, it outperformed its peers despite lacking natural and financial resources, including limited foreign reserves, and presence of restrictive tariffs on imports. This note, relying mainly on preliminary data and literature review, finds out reasons behind the achievements of Bangladesh in apparel exports. Those achievements came as a result of convergence of various factors, including the

¹ Apparel constitutes of HS Chapters 61 (knitted apparel) and 62 (woven apparel).

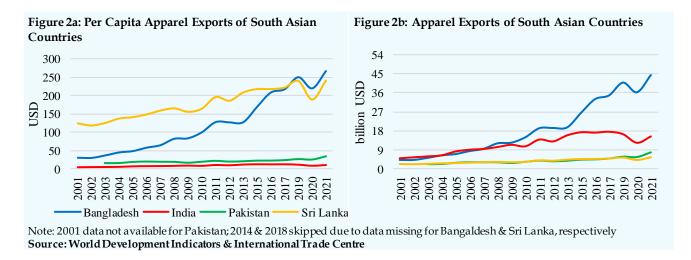
² Source: International Trade Centre

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³ It may be noted here that according to World Trade Organization, in 2020, Bangladesh slipped to third position in apparel exports to the world, with Vietnam replacing it at second position. However, as per International Trade Centre, Bangladesh still held the second position in 2020.

Multi Fiber Agreement transferring part of global apparel demand to untapped supply markets; supportive government policy environment in Bangladesh; availability of cheap labor ensuring cost competitiveness; localization of yarn and fabric sourcing through development of backward linkages; preferential access to the European Union, and economic upgrading by leading firms.

Understanding the path of rising apparel exports from Bangladesh is an interesting case study. This note is attempt to explore this path. The rest of the note is divided into 7 sections. Section II gives a brief overview of the Bangladesh's apparel industry. Section III throws light on the industry's early journey while discussing the role of the Multi Fiber Agreement and joint ventures. Sections IV and V further discuss major factors, both domestic and international, behind the industry's export performance. Section VI highlights major challenges facing the industry; and last section ends the



discussion with concluding remarks.

II. Apparel Industry of Bangladesh – A Brief Overview

Apparel industry of Bangladesh came to replace the jute sector in the 1980's at a time when the latter was losing market shares in the global export market, and country's net foreign exchange reserves were untenable. While the traditional export sector could not yield expected results, the apparel sector gradually injected dynamism in the export as well as in the domestic economy through economic activities in backward and forward linkages (Bhattacharya et al. 2002). Over the years, apparel industry's contribution to the country's Gross Domestic Product (GDP) increased significantly from 2.7 percent in FY91 to 16.3 percent (highest level) in FY14 (Mia and Akter 2019). 4.5 Between FY85 and FY22, apparel industry's exports grew at an average annual growth rate of 25.6 percent.

Bangladesh's apparel industry is one of the fastest-growing industries in the world since the 1990's, and is a major source of its foreign earnings for the last three decades (Swazan and Das 2022). The South Asian country managed to become the second-biggest apparel exporter in the world in 2014—an apparel sourcing "hotspot". Since 2008, annual export growth (in US dollar terms), propelled mainly by apparel exports, has been over 10 percent in Bangladesh compared to just 1.6 percent globally and 3.3 percent in the rest of South Asia (World Bank 2021). Bangladesh went from being hailed as a "bottomless basket" in the 1970's to getting called the "next Asian Giant" in 2010's.

⁴ Note: This paper reports apparel's contributions to Bangladesh's GDP as far back as FY91 only.

⁵ Bangladesh's fiscal year runs from July to June.

Growth of the country's apparel industry over the years is captured in **Table 1** along different dimensions, including the number of apparel factories, employment, apparel exports and share of these exports in total national exports. In terms of product classification, apparel exports of Bangladesh are almost evenly divided among woven and knit apparel since

FY06. Major categories of products include trousers, T-shirts, knitted shirts, sweaters, blouses and underwear. In terms of destinations, around half of shipments go to the European Union-27, one-fifth to the USA, one-tenth to the UK, and three percent to Canada; together these destinations account for a little over 80 percent of Bangladesh's clothing shipments. In FY19, before the COVID pandemic hit, Bangladesh's apparel exports clocked in at US\$ 34.1 billion; in FY84, the same had accounted to US\$ 31.6 million. After dipping in COVID-hit FY20, they recovered well in FY21 and FY22, fetching US\$ 31.5 billion and US\$ 42.6 billion, respectively.

III. Early Stages—Role of Joint Ventures and Multi Fiber Agreement

Bangladesh had a non-existent textile industry at the time of independence in 1971. That changed with the advent of the Multi Fiber Agreement (MFA). MFA was an international trade agreement concerning textiles and clothing trade that was in place from 1974 to 2004. Under the MFA, developed countries would impose quotas on textiles and clothing imports from the world with an aim to protect their own local industries from foreign competition.

Republic of Korea, which was one of the top apparel producing and exporting countries in the 1970's, was among the developing countries adversely impacted by the MFA quota caps. Korea thus sought overseas subcontracting in order to find other geographic

Table 1: Growth of Bangladesh's Apparel Industry Over the Years

Fiscal Year	No. of Apparel Factories	Employment (million workers)	Apparel Exports (million US\$)	Share of Apparel Exports in Total Exports (%)
FY84	134	0.0	32	3.9
FY85	384	0.1	116	12.4
FY92	1,163	0.6	1,183	59.3
FY93	1,537	0.8	1,445	60.6
FY94	1,839	0.8	1,556	61.4
FY00	3,200	1.6	4,349	75.6
FY04	3,957	2.0	5,686	74.8
FY05	4,107	2.0	6,418	74.2
FY10	5,063	3.6	12,497	77.1
FY15	4,296	4.0	25,491	81.7
FY19	4,621	4.5	34,133	84.2
FY20	-	-	27,949	83.0
FY21	-	-	31,457	81.2
FY22	-	-	42,613	81.8

Source: USDA Cotton and Products Annual. Various Years (as per latest available data on the variables in these reports).

locations that were not subject to the bilateral agreements. Through overseas subcontracting, big apparel firms from Korea saw an opportunity to set up factories abroad, so that they could produce and export products to developed countries from there, without violating their own country quotas—a step often dubbed as 'quota hopping'.

Starting in late 1970's, many of these investments flowed into Bangladesh (Samantha 1998). Bangladesh offered cheap and abundant labor, making it an attractive destination for labor-intensive garment manufacturing. Koreans established joint ventures in Bangladesh, and provided it with much-needed capital for investment in modern plant and machinery, along with imparting of technical expertise, marketing skills, and continuous supervision. One of the pioneering joint ventures was signed between Desh Garments Limited of Bangladesh and Daewoo of Korea in 1978. Through this venture, Desh Garments imported garment-making technology from Korea and became the first hundred percent exporting unit in the country. As noted by Rock (2001), Desh-Daewoo venture is considered a major impetus for the initial development of the Bangladesh's garment industry, because the country was able to supplant all the entry barriers successfully. It also helped develop the industry's reputation as a reliable supplier of garments to the major markets by capitalizing on Daewoo's brand name and marketing network.

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⁶ Note: These stats are sourced from Bangladesh Garment Manufacturers and Exporters Association, which publishes data from FY84 onwards on its website. Available at: https://www.bgmea.com.bd/page/Export_Performance

⁷ www.deshgroup.com/founders-story.html

A generation of Bangladeshis also received intensive hands-on training in apparel production in Korea (Rhee 1990). Those trainees later set up their own factories in the country that set on the course of producing and exporting garments on scale. Between 1984 and 2004, the number of apparel factories rose from 134 to 3,957. With nominal export values in the 1980's, country's garment exports grew significantly in the 1990's, at an average annual rate of 24 percent. Between FY84 and FY04, these exports had risen 22 times from US\$ 32 million to US\$ 5.7 billion (**Table 1**).

Initially, Bangladesh had not been part of any bilateral agreement under the MFA. However, in the 1980's, it was subjected to quota restrictions by the developed countries as its garment industry began to shape up and export its products. Instead of impeding, MFA quotas helped prop up its garment shipments. By 2004, last year of the MFA, Bangladesh's quota-based access to the restricted markets (the US, Canada, Norway, and others) accounted for 94 percent of its apparel exports, among the highest ratios in the world (Mlachila and Yang 2004). As indicated in **Table 2**, average quota utilization for some selected textile and clothing products was 89 percent for Bangladesh—highest among regional

Table 2: C	omparative Quota Utilization in Selected Textile	s & Clothing Categor	ries (as on Dec 19	999)	
Category Code	Description	Bangladesh	Pakistan	India	Sri Lanka
338/339	M&B knit shirts	89%	86%	96%	86%
340/360	W&G knit shirts	87%	84%	100%	89%
341	W&G shirts & blouses, not knit	87%	25%	93%	77%
342/642	Skirts	81%	38%	86%	89%
347/348	Men's and women's trousers, breeches & shorts	100%	93%	87%	94%
352/652	Underwear	96%	52%		72%
363	Terry and other pile towels	81%	90%	94%	73%
369	Other cotton manufactures	90%	75%	60%	100%
638/639	Men knit shirts & women's knit shirts & blouses	90%	75%		78%
647/648	Men's and women's trousers, breeches & shorts	95%	66%	76%	
331	Gloves and mittens	88%	68%	76%	78%
	Average utilization rate	89%	68%	85%	84%
Source: Bha	ttacharya and Rahman 2000	,			

peers.

The MFA (1974-2004) proved to be a blessing in disguise for the infant Bangladesh garment industry. Exports under quota had provided Bangladesh with a guaranteed market and an *artificial* opportunity to fend off competition from other countries, some of which would perhaps have greater competitive strength under a quota-free, market driven regime (Bhattacharya and Rahman 2000). Rock (2003) noted that Bangladesh became an attractive market for foreign retailers and buyers—such as JC penny, GAP, and Walmart—which relocated their production facilities or outsourced some of their production activities there, while garment exports by the most competitive countries, like China and India, were constrained by the MFA quota caps. MFA quotas essentially created a demand-supply gap on the global level, leading countries like Bangladesh to fill in those gaps.

Quotas had come to play an important role in lifting Bangladesh's apparel industry and exports from the ground. In fact, at the time, it was widely believed (such as Dowlah 1999) that with export quotas abolished and replaced by open competition, the South Asian country would lose out its exports to competitors, like India and China. Nevertheless, it defied such odds and kept on raising its stake in the international market beyond the phase-out of the Agreement in 2004. In the ensuing decade, its apparel exports more than quadrupled from US\$ 5.7 billion in FY04 to US\$ 24.5 billion in FY14, growing at an average annual rate of 16.2 percent (**Table 1**). In FY19, they recorded their highest level—US\$ 34.1 billion.

IV. Export-promoting Policies of the Government and the Bangladesh Bank

Bangladesh adopted import-substituting growth strategy in the early 1970's [Ahmed (2009)]. That meant large-scale public sector enterprises, extensive quantitative restrictions on imports, high import tariffs, foreign exchange rationing and an overvalued exchange rate, creating an "anti-export bias". There were restrictions on private investment and foreign direct investment. However, political change of 1975, argue Yunus and Yamagata (2012), brought some pro-market and laissez-faire policies that helped set the future course of industrialization in the country. For instance, the private investment ceiling was increased to Tk. 100 million and later removed in 1978. That's when multinationals like Daewoo got into joint ventures with the local firms. Yunus and Yamagata (2012) further argue that the Bangladesh government has always supported the apparel industry in terms of rationalization of tariffs and taxes on imports of capital machinery, raw materials, dyes and chemicals, and reduction of interest on long- and short-term loans. The government offers incentives for encouraging the use of local fabrics in the export-oriented garment industries. To encourage textile export, exporting firms can also import capital machinery and cotton duty-free.

Moazzem and Sehrin (2016) also found these policies to have played a key role in the development of the manufacturing and export bases of the apparel industry. Besides these, they also mention the 50 percent tax exemption on the export income of all the export-oriented industries, and subsidized credit under the Export Development Fund (EDF). EDF was established in 1989, and it provides low-interest loans in foreign currency to manufacturers-cum-exporters to procure imported raw materials. World Bank (1989) noted that the EDF, which would be spearheaded by the Bangladesh Bank (the central bank), was a self-sustainable revolving fund, providing up to 180-day foreign currency pre-shipment financing to exporters, in line with the export production cycle, at an international interest rate. Disbursements from the EDF sub-loans would be made by commercial banks directly to the suppliers, and repayments to the EDF will be deducted by commercial banks from payments to exporters by their foreign buyers. Principal and interest repaid to EDF on account of sub-loans and any interest accrued on the investment of the EDF funds for further lending to eligible exporters.

Ahmed (2009) talks about different export-friendly policies that proved to be major domestic drivers of Bangladesh's garment success. They included duty drawback scheme, cash incentives, bonded warehouse facility and back-to-back letter of credit. Under the duty drawback scheme, the tariffs paid on imported inputs and the value-added tax paid on local inputs used for export products are refunded. All export-oriented production units not enjoying bonded warehouse facilities have access to the tariff drawback. Under the cash compensation scheme, domestic suppliers to export-orientated RMG factories receive a cash payment equivalent to 10 percent of the value addition of the exported RMG. That being said, the two most crucial policies are the bonded warehousing and back-to-back letter of credit.

Granted in 1980 on the prescription of leading entrepreneurs, these policies proved instrumental in enabling the growth of the garment industry in the decades to come. Although these policies were available to all the exporting sectors of the economy, it was the textile and apparel sector that benefitted the most from it over the years. Staritz and Fredrick (2012) noted that these government policies greatly helped in the establishment of local firms in the apparel sector in Bangladesh; Staritz (2011) also acknowledged the significance of these policies.

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⁸ This rate was later reduced to 5 percent.

Table 3: Bangladesh's Imports of Yarn and Other Textiles (million US\$)			
Year	Yarn	Textiles & Articles	Total
FY06	501	1,728	2,229
FY10	718	1,986	2,704
FY14	1,506	3,584	5,090
FY18	1,907	4,567	6,474
FY21	2,132	4,209	6,341
Source: Bangladesh Bank			

Bonded warehouses and back-to-back letter of credit facilitated the textile and apparel sector of Bangladesh, which is mostly dependent on imported inputs (**Table 3**). Despite the establishment of backward linkages over time, country's growing demand for textiles, particularly fabric, has always outpaced domestic supply, hence constant dependence on imports.

a) Access to Key Imported Inputs at World Prices: Usage of Bonded Warehouses

Starting in 1980, bonded warehousing is widely used in the textile sector of Bangladesh, and is considered as an important facility behind its stellar apparel performance. An alternate to suspended import duty and duty-drawback schemes, bonded warehouse allows firms to take imported goods into warehouses without paying any duty or tax at the time of import. They use these goods in their production, and are contractually bound to export the final products. Under the contract, firms can also purchase input goods from domestic suppliers free of domestic taxes, like sales tax and excise tax. Customs authorities regulate and supervise the licensee firms.

Bangladesh's apparel manufacturers, which, as mentioned above, rely heavily on the imported textile inputs, are major beneficiaries of bonded manufacturing as they fetch all-important textile intermediaries at world prices. This is a much better alternate to duty drawback schemes, which are inherently inefficient mainly due to bureaucratic red tape. According to Yunas and Yamagata (2012), this policy modification added extra edge towards the industry's competitiveness as it readily led to removal of trade barriers in terms of bureaucratic delays and rent-seeking, as well as effective lead time reduction of production.

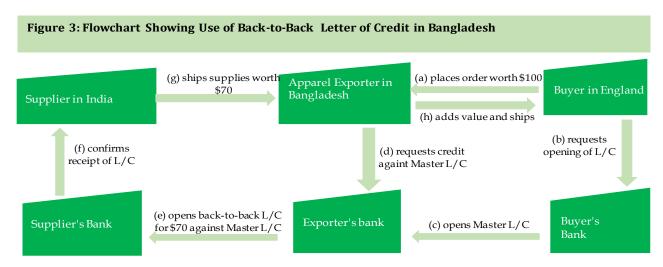
It is pertinent to note here that in Bangladesh despite legal provisions, access of bonded warehouses to other sectors, like the leather sector, is quite limited as it is systematically discouraged; ninety percent (around 2,000) of bonded warehouses licensees are apparel exporters. There is a systemic bias in Bangladesh favoring apparel production and exports; and this bias could be partly explained by the fact that successive governing coalitions in Bangladesh have comprised of legislators with financial interests in the garment sector. Some estimates propose that around 10 percent of country's legislators—or around 31 members—directly own apparel factories or carry vested financial interests in them (Ahmed, Greenleaf and Sacks 2013). Besides an easier access, apparel sector licensees also tacitly enjoy incentives, like permission to have multiple premises—albeit within 60 km—on one license, and not being subjected to state's constant on-site surveillance.

b) Leveraging Back-to-Back Letter of Credit to Reduce Need for Working Capital Loans

With Bangladesh dependent on imported textiles intermediaries, the country adopted a financial instrument called back-to-back letter of credit in 1980. Most apparel exporters in Bangladesh agree that back-to-back letter of credit is the most notable factor responsible for the growth in the country's apparel exports over the years; that is, besides the favorable international environment created under the Multi Fiber Agreement (Ahmed, Greenleaf, and Sacks 2013).

Back-to-back letter of credit allows exporters to import inputs (fabrics and accessories) against the export orders placed in their favor by the final apparel importers. It ensures them up to 70 percent of working capital they require in the process.

⁹ Source: Export Diversification through Bonded Warehouse Reforms Key Issues and Challenges. Bangladesh Policy Notes. World Bank. https://openknowledge.worldbank.org/bitstream/handle/10986/30551/Export-Diversification-through-Bonded-Warehouse-Reforms.pdf?sequence=1&isAllowed=y



For example, to put it simply, a buyer in England has placed an apparel order worth US\$ 100 with a Bangladesh apparel firm, and issued it a master L/C to that effect. The firm has to procure cotton fabric worth US\$ 70 from India to make that order. The firm asks its bank to keep the master L/C as collateral and issue it the credit worth US\$ 70 through an L/C (now called back-to-back letter of credit), so that it can import fabric from the supplier in India (**Figure 3**). Without using its own resources for procurement, the exporting firm imports inputs for value addition. At the time of maturity of master L/C, the exporter's bank settles the back-to-back L/C amount and releases the remaining export proceeds (US\$ 30 in this case, which is firm's net value addition) to the firm. **Table 4** shows that between FY13 and FY20, amount of raw materials imported under back-to-back letter of credit was around 40 percent of the annual apparel exports; the value addition to those raw-materials was 60 percent.

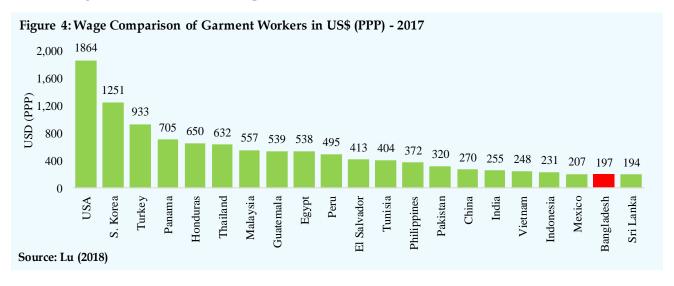
This arrangement has two-fold benefits. It helps apparel manufacturers and exporters to cut back on their working capital requirements, providing them fiscal space to ensure higher utilization of existing capacity, as well as capacity expansion. Staritz (2011) noted that these policies, along with cash incentives, facilitated local involvement in the sector. Secondly, the country earns net foreign exchange without drawing down on the existing reserves.

Both these policies, bonded warehouses and back-to-back letter of credit, helped Bangladesh assimilate into the global textile value chain effectively and sustainably. They enabled the entrepreneurs to set-up factories with low investment, thus allowing mushroom growth of the industry (Yunus and Yamagata 2012). The manufacturers were able to keep the prices of final products in check and competitive, as they sourced imported supplies in a duty-free environment with limited working capital requirements or under convenient borrowing arrangements with the banks. Once established, the manufacturers would also have more resources available to invest on scale production.

Table 4: Bangladesh's Raw Materials Import Under Back-to-Back Letter of Credit				
Fiscal Year	RMG Export (US\$ million)	Back-to-Back Raw Materials Import^ (US\$ million)	Back-to-Back Raw Materials Import as Percent of Total RMG Export	Value Addition (percent share)
2012-13	21,516	8,227	38.2	61.8
2013-14	24,472	9,664	39.5	60.5
2014-15	25,491	9,592	37.6	62.4
2015-16	28,094	10,211	36.3	63.7
2016-17	28,150	10,760	38.2	61.8
2017-18	30,615	11,958	39.1	60.9
2018-19	34,133	12,178	35.7	64.3
2019-20*	16,024	6,344	39.6	60.4
* Jul-Dec; ^Amo	unt of L/C settlement	under back-to-back import		
Source: USDA's Co	otton and Products Ann	uals, Bangladesh (2019 and 2020)		

V. Other Key Factors Behind Bangladesh's Rising Apparel Exports

a) Low Wages and Female Labor Participation



Cost of producing a piece of apparel is heavily weighed by the cost of labor. And, Bangladesh is a country with large population and lower wages, with un-skilled women from rural areas accounting for four-fifths of the apparel labor force. Yang and Mlachila (2007) and Ahmed (2009) regard low wages in Bangladesh as one of the primary drivers of competitiveness in the garment sector in both the MFA and post-MFA periods. Jassin-O' Rourke Group (2008) found that average labor cost per hour was the lowest in Bangladesh vis-à-vis the competitors in 2008. Compared to Bangladesh's US\$ 0.22, wage rates in India were twice as high and four times in China. Akter (2020) notes that most of the apparel Multinational Companies (MNCs) have been lured to source from Bangladesh mainly due to its cheap labor.

Lu (2018) compared the wages of garment workers across the globe. The comparison showed that Bangladesh offered the second-lowest wages in the world (**Figure 4**). Its level was one-tenth of the US' and one-sixteenth of the South Korea's. Except for Sri Lanka, Bangladesh's wage was lowest among all the regional peers—including China, Pakistan and India.

Ready-made garment is a labor-intensive subsector of the textile sector, which consitutes of many subsectors like spinning, weaving, composite, knitting, dyeing, finishing, and so on. Employees of the textile sector in Bangladesh can be divided into three categories: general workers, textile technologists, and non-technical persons. Among the three, general workers dominate the mix. In the readymade garments sector, women outnumber men in the general workers category (Department of Textiles 2009 and Razzaque 2021). These women, who are less educated, unskilled and hail from rural areas of the country, are generally willing to work at a low rate, in an effort to improve their livelihoods and standards of living. This explains the historically low wages paid to the garment labor-force, which is the cornerstone of enduring competitiveness of Bangladesh.

It can be argued that competitiveness-inducing low wages are offset by low productivity of the workers. For example, a 2005 World Bank study estimated the average annual value addition per worker in Bangladesh at US\$ 2,500, compared to US\$ 7,000 for a group of similar Chinese factories. Notwithstanding that, the same study found that even after adjusting for productivity differences across countries, Bangladesh's apparel industry still maintained a significant low labor cost advantage over competitors (World Bank 2005). This advantage has sustained over the years, as noted by many researchers [Razzaque 2021; Yang and Mlachila (2007); Ahmed (2009); Jassin-O' Rourke Group (2008); Akter (2020)]. Moreover, World Bank (2012) also found that the low labor advantage is only partially—not completely—offset by the low levels of productivity.

b) Establishment of Backward Linkages

Over the last few decades, Bangladesh has strengthened its backward linkages in the garments sector. One of the benefits of sourcing locally is that it helps reduce the lead time for apparel production. Bangladesh's lead time has reduced from 120-150 days in the 1990's to 90-120 days now (Khan 2021). Bangladesh's apparel sector is almost self-sufficient in accessories and support services, as it is able to source locally about 80 percent of the demand for accessories, such as thread, buttons, tapes, labels, bags, cartons, and shirt board (Saheed 2008). Bangladesh's domestic production of yarn and fabric has also grown to plug the supply-demand gap of the textile intermediaries in the value-added sectors of the supply chain (**Table 5**). In FY07, the country's fabric production was 54.8 percent of the total fabric consumption; it rose to

around 92 percent in FY15. Whereas, yarn production was 76.4 percent of the total yarn consumption in FY07; it increased to 80 percent in FY15.¹¹ Between 2006 and 2019, number of spinning mills also rose from 260 to 433, with spindle capacity more than doubled (**Table 6**).

Development of primary textile sector (backward linkages), in tandem with the growth in the number of garment factories, enhanced country's capacity to deliver large sale volumes. McKinsey and Company (2011) found in their survey of European and US buyer firms that one of the key advantages of sourcing from Bangladesh was its large capacity. With 5,000 garment factories (at the time), employing 3.6 million workers out of a total workforce of 74 million, Bangladesh was ahead of Southeast Asian suppliers in terms of capacity offered. For example, Indonesia had about 2,450 factories; Vietnam 2,000; and Cambodia 260.

Backward integration also played a pivotal role in the development of the knit segment of Bangladesh's apparel industry. In the 1980's, Bangladesh produced and exported mainly woven apparel products. Starting in the 1990's, knitted apparel products began to increase their share in the apparel export basket of the country. In FY93, for instance, knitted garments made only 14 percent of the total garment exports, which stood at US\$ 1.4 billion; by FY05, their share had risen to 44 percent of the total, which were US\$ 6.4 billion; and later the shares of both knitted and woven apparels almost got equal. That showed that the apparel industry unlocked the potential in knit segment over time.

Table 5: Bangladesh's Domestic Production of Yarn and Fabrics			
Fiscal Year	Yarn Production (million kg)	Fabric Production (million meters)	
1973	39	702	
1984	67	983	
1994	140	1,048	
2004	380	2,750	
2009	640	3,250	
2010	731	3,450	
2011	694	3,700	
2012	613	3,950	
2013	688	4,200	
2014	1,166	6,123	
2015	1,115	5,850	

Source: 1973 to 2008 data by Staritz & Fredrick (2012); 2009-2015 data by USDA's Cotton and Products Annual 2017 Bangladesh

Table 6: Rising Trend of Bangladesh's				
Spinning Capacity				
Fiscal Year	No. of Mills	Spindle Capacity (kg)		
2006	260	5.5		
2007	283	6.0		
2008	341	7.2		
2009	350	7.6		
2010	373	8.7		
2011	392	9.6		
2012	392	9.8		
2013	394	9.8		
2014	407	10.3		
2015	413	11.1		
2016	424	11.7		
2017	425	12.4		
2018	430	13.2		
2019	433	13.4		
Source: USDA's Cotton and Products Annual 2021 Bangladesh				

Establishment of wider and deeper backward linkages in the production of knit products, in comparison to woven products, played a key role in the diversification of product portfolio. As reported by Department of Textiles (2009), domestic suppliers could fulfill 85-90 percent demand of the fabrics and 75 percent of the yarn required for knit products exports. A dyeing and finishing sector also developed to support the knit sector. Woven sector, despite having a head-start advantage over knit sector, could not develop strong local linkages, and it stayed dependent on imported woven fabrics to meet better part of manufacturers-cum-exporters' demand. This difference is partly rooted in the fact that the woven sector, being more technology-intensive, requires higher investment. World Bank (2005) noted that a knit fabric mill,

¹⁰ It is still high compared to competitors like China and Vietnam, but the reduction is reflective of establishment of backward linkages over time.

¹¹ Source: Cotton and Products Annual 2017 for Bangladesh, US Department of Agriculture

including a dyeing and finishing unit of a notable minimum economic size, required an investment of US\$ 3.5 million; while the investment for a similar set-up for woven fabric was about US\$ 35 million.

Certain government policies had also incentivized establishment of knit fabric mills. In 1994, the government offered cash incentives for exports of apparel made from locally produced yarn and fabric, which prompted investments in composite knitting mills and spinning. The government also offered subsidized lending to the knit sector, and support in terms of investment in land development, power and infrastructure (Staritz and Fredrick 2012).

c) Preferential Treatment in Europe and Canada, and Increased Market Share in the US

Bangladesh has preferential access to 38 countries in total, including 27 countries from the EU, Canada, UK, Japan, Australia, Belarus, Liechtenstein, New Zealand, Norway, Russian Federation, Switzerland and Turkey. ^{12, 13} Europe (the EU-27 and UK) and the US remain its top traditional markets, with a combined share of over 80 percent.

i. The European Union and Generalized Scheme of Preferences

Bangladesh has been enjoying preferential access to the European Union market through Generalized System of Preference (GSP) since July 1971 (changed to Everything but Arms initiative in 2001). Textiles and apparel were included in the scheme later in the 1980's, which served as a stepping stone for the nascent apparel industry in a key market. He South Asian country's EU-bound exports received a boost in the last quarter of the 20th century via preferential market access under the GSP facility; later, the Union became the largest destination for Bangladesh's apparel (World Bank 2005, Razzaque 2021).

The GSP impact was limited at first. Prior to 1995, the GSP utilization rate for Bangladesh's textiles and clothing exports was lower than agricultural and other industrial products. It had to do with the Rules of Origin (ROO) associated with the EU-GSP scheme. From 1980 to 1996, ROO required two-stage and three-stage transformations for export of Bangladesh's woven and knit products, respectively. Since Bangladesh was yet to develop strong backward linkages and it depended heavily on imported yarn and fabric (particularly woven fabric), it could not quite satisfy the said rule of origin for both knit and woven products; hence, limited apparel exports to the EU prior to 1995. Nonetheless, that changed with two key developments. One, the government, as discussed earlier, had set upon establishing knitting industry through various incentives, starting in the early 1990's. Second, and more importantly, by the second half of 1990's, the EU reduced transformation rule for knit apparel from three-stage to two-stage. With limited investment in the woven segment and dependence on imported woven fabric, both these developments saw knit apparel exports increasing rapidly to the EU, as Bangladesh's primary textile industry sprawled in the 90's and beyond.

EU's (including Great Britain) apparel imports from Bangladesh rose from \$ 152 million (0.9 percent of total non-EU apparel imports) in 1988 to \$ 4.6 billion (7.3 percent) in 2004. The share almost doubled to \$ 8.2 billion (9.7 percent) by 2010 (**Figure 5**). This rise in shipments came almost entirely on the back of knit products, like T-shirts and sweaters.

Even though Bangladesh's apparel exports to the EU were on a constant rise, woven products exports stood stagnant for many years due to double transformation rule and lack of local linkages in woven segment of the value chain (**Figure 5**). Nevertheless, that changed in 2011, when Bangladesh qualified for GSP Plus status in the EU. That accompanied a change in Rule of Origin: two-stage transformation requirement got reduced to one-stage for Bangladesh's apparel

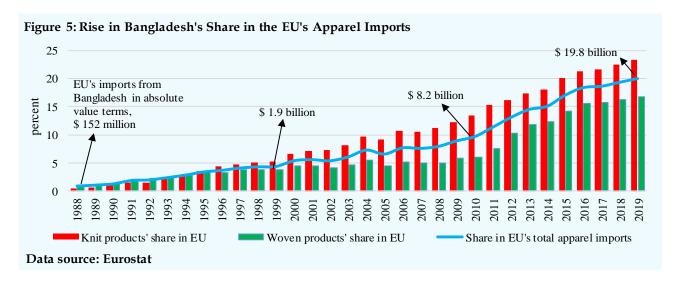
¹² http://www.epb.gov.bd/site/page/7bd7d4d7-cdba-4da3-8b10-f40da01e49b6/Market-Access-Facilities

¹³ It may be noted that the UK, even after parting ways with the EU, still has GSP facility available for all countries eligible under EU-GSP scheme, including Bangladesh. (Source: https://www.gov.uk/government/news/preferential-tariffs-continue-for-eligible-developing-countries)

¹⁴ It may be noted that the European Union had set no quotas under the Multi Fiber Agreement (1974-2004) for Bangladesh—a beneficiary of GSP scheme.

¹⁵ Rules of Origin are means to determine from where the goods originate; that is, not where they have been shipped from, but where they are deemed to have been produced or manufactured. For instance, two-stage transformation rule in the manufacture of apparel required at least two levels of value addition to an imported input used in the manufacture. EU would import woven garments from Bangladesh if the final product satisfied the condition of being made from yarn and fabric produced locally using imported cotton.

¹⁶ The EU had lowered the requirement to one-stage from 1996-1998 under a quota system, and later increased it to two-stage instead of three-stage.



products. That meant, Bangladesh could now use the imported woven fabric to make clothes and export to the largest single market in the world. As can be seen in **Figure 5**, share of Bangladesh in the EU's overall woven garments imports took off sharply from 2011 onwards, reinforcing the already-strong knit products exports. Between 2001 and 2010, these imports (in value terms) had averaged US\$ 1.9 billion per year; later, between 2011 and 2019, the average increased to US\$ 6.3 billion. The EU market now accounts for the largest apparel destination of Bangladesh with about 60 percent share. The EU market now accounts for the largest apparel destination of Bangladesh with about 60 percent share.

Substantiating the positive impact of preferential trade agreement on Bangladesh's apparel trade, McKinsey and Company (2011) notes that besides price, capacity, and capability (to deliver good quality of large orders for the midmarket products), many European buyer companies found Bangladesh to be an attractive sourcing hub due to favorable trade agreements; it was made even more attractive by the change in the Rules of Origin.

ii. The United States

Besides the EU, Bangladesh was part of the US' GSP scheme from 1985 to 2013. However, unlike the EU-GSP scheme, it did not provide duty-free access to the major exportable tariff lines of the country (like trousers and t-shirts), hence its impact was only confined to other agricultural, food, and industrial products. Despite that, the US is the second largest market of Bangladesh's apparel after the EU, with around one-fifth share. According to Export Promotion Bureau

Year	US' Imports from Bangladesh (million US\$)		Share of Bangladesh in US' Imports			
	Knit	Woven	Total	Knit	Woven	Total
1995	237	827	1,064	1.6%	3.6%	2.8%
2000	471	1,471	1,942	1.8%	4.5%	3.3%
2005	631	1,792	2,423	1.8%	4.6%	3.3%
2010	1,076	2,988	4,064	2.7%	8.4%	5.4%
2015	1,506	3,950	5,455	3.1%	9.7%	6.1%
2019	1,686	4,242	5,929	3.5%	10.8%	6.8%
2021	2,735	4,554	7,289	5.2%	13.0%	8.3%

¹⁷ Data source: Eurostat

¹⁸ Data source: Bangladesh Garment Manufacturers and Exporters Association (BGMEA)

(Bangladesh), the US accounted for Bangladesh's US\$ 5.9 billion worth of apparel exports in FY21.

With the Multi Fiber Agreement (MFA) quotas phased out by 2004, Bangladesh's woven-led apparel products gathered significant momentum as they were able to compete without quotas with other countries on price, capacity, and quality. McKinsey and Company (2011) observed that Bangladesh offered two main "hard" advantages: price and capacity. It also provided satisfactory quality levels, particularly in value and entry-level mid-market products. These advantages enabled Bangladesh to jack up its share in the large US market (**Table 7**). Traditionally, the US market has had higher demand for Bangladesh's woven apparel.

iii. Canada

Bangladesh's apparel exports to Canada increased significantly after the South Asian country was afforded duty-free access in 2001, under former's GSP scheme. With the provision of minimum 25 percent local value addition (an easy requirement), both knitwear and woven wear exports have significantly improved in terms of value and share. Almost all apparel exports from Bangladesh to Canada are covered under the facility (Moazzem and Sehrin 2016).

d) Process, Product, and Functional Upgrading

Bangladesh was able to carry out economic upgrading to varying degrees in its garment sector that helped it gain competitiveness in the post-MFA (quota-free) world. While it was limited to a score of leading firms, it occurred along three dimensions: process, product and functional.

i. Process Upgrading

It refers to increasing the efficiency of the transformation of inputs into outputs by reorganizing the production method, management techniques or adopting better technology. Moazzem and Sehrin (2016) threw light on the performance of 21 large firms in Bangladesh (with significant stakes in national apparel exports) with regards to economic upgrading between 2005 and 2011. They found that in the period under consideration, these firms had significantly increased the use of machinery and workers in production lines. While the number of machines and workers per line decreased in most factories, production per line had actually increased, which indicated rise in capital and labor productivity in those factories. This productivity boost came through the assimilation of better machineries and line technology into the value chain. Firms had introduced new line technologies to cut back on the number of workers per line, replaced low-speed and semi-automated machinery with high-speed and fully-automated machinery, and also introduced new industrial engineering departments to minimize inefficient allocations of resources in the production process. The process upgrading was carried out with upskilling of workers to adapt them to the new technologies in those firms.

With the help of automated computer-aided design machines and other sophisticated machines, process upgrading also helped firms to cut down wastage of resources and other unwanted expenses. Share of rejected goods (also known as 'stock lot') also decreased. Introduction of industrial engineering departments at the factory level reduced operational costs by rationalizing the use of machines and labor. Moreover, there was more widespread use of internet services between exporters and buyers for different aspects of communication. For instance, number of knitting apparel firms using internet to take orders went up from 50 percent in 2005 to 100 percent in 2011; for the woven apparel firms, it rose from 69 percent to 100.

Process upgrading was also facilitated by some government interventions. For example, improvement in physical infrastructure saw transportation time between factories and the sea port located in Chittagong come down. Similarly, customs automations through Automated System for Customs Data (ASYCUDA) reduced paper-based formalities in export and import activities. For the 21 firms under consideration, the lead time reduced from 88 to 44 days for knitwear firms and 98 to 60 days for woven wear firms. McKinsey and Company (2021), while reviewing the growth of the industry in the past decade, note that more firms are offering lead time less than standard 90 days (compared to 10 years ago), reflecting rise in vertical integration.

All of these changes in process upgrading at the 21 large firms brought following positive results: improved efficiency, higher labor productivity, lower operational costs, and reduced lead time. At the time of open and tough competition post-

¹⁹ They did so by comparing different indicators across time, data for which was sourced mainly from a 2011 Centre for Policy Dialogue Ready-made Garment Survey. Centre for Policy Dialogue is a Dhaka-based think tank.

MFA, Bangladesh's apparel sector gained considerable competitiveness not only through the wage advantage, but also restructuring and upgrading with regard to production processes, capabilities, and backward linkages. In the backdrop of falling garment prices amidst the Global Financial Crisis, Bangladesh's large firms were able to cut back on their margins; doing so, they developed enduring and reliable relationships with the buyers in the US and Europe.

ii. Product Upgrading

Product upgrading refers to introduction of new products, changes in product design and improvements in quality and capacity to manufacture more sophisticated output. While Bangladesh's overall apparel product mix hasn't changed much over the years (major change being introduction of knit products lines), Moezzam and Sehrin (2016) found a slow shift in the manufacturing bases of the aforementioned 21 large firms from traditional low-end basic items towards more value-added items between 2005 and 2011. In 2005, they explain, a major share of firms' manufactured items consisted of 'simple' and 'basic' design items using 'average' quality fabrics. Later in 2011, product lines included 'fancy' items with variety in design using 'good' quality fabrics.

Such changes were more pronounced in the knitwear firms, which could be attributed to the domestic backward linkages in the primary knit sector offering different types of fabrics in line with the buyers' (foreign) specifications and requirements in the shortest lead time. To ensure and maintain product quality, these firms had increased the strength of workers in quality control departments at their factories. Staritz and Fredrick (2012) also noticed that some of Bangladesh's leading firms had achieved product upgrading and started to produce more complex and higher-value apparel such as suits, dresses, jackets, and technical apparel.

McKinsey and Company (2021) also acknowledged that leading manufacturers of Bangladesh's ready-made garment sector have shown high degree of entrepreneurship and strategic management. They have made investments in productivity enhancement, digitization, automation, and sustainability, while operating in line with the best international practices. The report found that these manufacturers have made progress in diversifying and upgrading their product lines. For example, there is now greater capacity to produce garments with synthetic fibers; manufacture more complex products like outerwear, tailored items and lingerie; and offer new washes, prints and laser finishing. It further highlighted that this product upgrading has [also] been enabled by amendment in Rules of Origin for preferential trade with the EU [in 2011], that had allowed the use of imported fabric under the single-transformation rule.

iii. Functional Upgrading

Functional upgrading is the entry of a firm into a new, higher value-added function or level in the value chain, such as adding the function of original design, branding, and marketing to Cut-Make-Trim (CMT) activities by a firm. Moezzam and Sehrin (2016) highlighted that there was no discernible functional upgrading seen in the firms under consideration, which relied heavily on the buyers for research and development, design, marketing, and branding.

Nevertheless, Staritz and Frederick (2012) did find important changes in regard to functions performed by Bangladesh apparel firms over the years. They pointed out that in early 2000's, majority of firms were CMT firms. ²⁰ In 2005, two-thirds of firms were involved in CMT production. By 2011-12, a good share of those firms switched to being FOB (free on board) firms. FOB firms, unlike CMT firms, are capable of sourcing and financing inputs and offering all production services, finishing, and packaging for delivery to the retail outlet abroad. However, the paper acknowledges that those firms had done only limited functional upgrading to designing and branding.

VI. Major Challenges Facing the Bangladesh's Apparel Industry

Bangladesh's apparel exports have grown sharply in the past few decades, ranking second-largest by the mid-2010's. While the sector has benefited from different domestic and international factors, it faces potential challenges and issues that leave its all-important exports base vulnerable at the same time. Some of the major issues, which could impede the sustainability of these exports over the long run, are discussed hereunder:

²⁰ CMT firm is the one that produces low-cost outputs in high volume. It only cuts the fabric, sews it together, and adds final trims (zippers and buttons) and is not responsible for sourcing fabrics.

a) Concentration in Products Mix and End Markets

Bangladesh's apparel exports are dominated by a fixed basket of products and end markets. As per Bangladesh Garments Manufacturers and Exporters Association (BGMEA), Bangladesh's major export items are: trousers, sweaters, T-shirts and knitted shirts, shirts and blouses, and underwear. Between FY16 and FY21, average annual share of these products was 84 percent of the total. And, among these products, trousers and t-shirts had around 60 percent share of the total apparel exports. While Bangladesh included and promoted knitted products in its export basket in the 1990's and its leading firms have invested in product upgrading, its apparel sector as a whole has room to diversify both in terms of product lines and source fiber, in order to tend to the rapidly evolving demand dynamics of the global apparel market. Bangladesh's exports are dominated by the cotton-based products such as shirts, t-shirts, pants, and suits. However, globally, it is the demand for synthetic fiber-based products that is on the constant uptrend, accounting for 45 percent of global apparel trade (Gu et al. 2021).

Furthermore, Bangladesh's garment exports are also concentrated by destination markets. As per BGMEA, the European Union, United Kingdom and United States account for around four-fifths of its total garment exports.²¹ Canada, the third largest market, has a share of around three percent. As indicated by the COVID pandemic, high market concentration can have substantial adverse impact on the country's major source of exports and economy.²²

b) Long Lead Times

Lead time of Bangladesh's apparel exports has come down from 120-150 days in 1990's to 90-120 days now, with some large firms bringing it further down to 44-60 days. However, it is still considered higher than competitor countries like China, whose lead time is only 30-35 days, due to very strong backward integration and developed logistics; in Vietnam, it's 60 days (Khan 2021). Bangladesh's long lead times are generally weighed up by the woven segment, which is still not as domestically developed as the knit segment, and depends on woven yarn and fabric imports, which take time to deliver. ²³

c) Low Productivity

Bangladesh's major source of competitiveness is its low-cost labor. It is mainly because of the lack of skilled workers, supervisors, and managers. Clark and Kanter (2011) found that the productivity level of Bangladesh garment workers is not adequate by international standards, and it is just one-fourth of that of Chinese counterparts owing to workers' low literacy.

Bangladesh lacks productivity due to low technology use, as well; it is behind its peers, including Vietnam. Similar to Bangladesh, Vietnam is a fast-growing lower middle-income country with success in the global apparel market; however, the discriminating factor is the latter's transitioning from a labor-intensive growth strategy to a more productivity-led growth model. Survey-based comparative analysis shows Bangladesh trailing Vietnam in many general-purpose technologies. The challenge of low productivity is poised to snowball over time, with the labor cost-based competitiveness at stake in the face of rising real wages in Bangladesh; wages face upward pressures as the country adapts to its middle income status. Moreover, wage-based competitiveness is also facing headwinds from increased automation and consumers preferring more speed and customization in value chains. (Gu et al. 2021).

²¹ The EU-27, UK and US accounted for 40 percent, 5.7 percent and 20.1 percent of the average annual global apparel imports between 2017 and 2021. Source: International Trade Center (2022)

²² In 2020, Bangladesh's garments exports to the EU and US had declined by 16.7 percent and 15.8 percent, respectively, resulting in 18.1 percent decline in overall apparel exports the same year. While this decline was in tandem with the worldwide trend, it, nonetheless, showed countries with concentrated markets and products were more vulnerable. Data source: Bangladesh Garment Manufacturers and Exporters Association (2022)

²³ More than 40 percent of yarn demand for woven RMG and 90 percent of yarn demand for knit RMG are supplied by imported inputs. Source: USDA's Cotton and Products Annuals, Bangladesh 2021

d) Graduation Out of Least Developed Country (LDC) Status

In 2026, Bangladesh will graduate out of its Least Developed Country status;²⁴ when it does, it will also start to lose access to associated preferences and perks, including favorable tariffs on its exports, development grants, and low-cost loans from the World Bank and other multilateral institutes. This graduation will likely hurt the garment sector (Moazzem and Ahmed 2021). It may be recalled that Bangladesh enjoys preferential access to its largest apparel market, the European Union, based on its LDC status. Should it graduate, that preference will likely be rolled back.

e) Rising Competition

Rising international competition is another challenge facing Bangladesh. While it still remains one of the potent sourcing hubs in the world, it is up against tough competition from other countries—Vietnam, in particular. According to World Trade Organization data, in 2020, garment exports from Bangladesh amounted to US\$ 28 billion (6.3 percent market share), while global garment exports from Vietnam stood at US\$ 29bn (6.4 percent); which meant, Vietnam took over Bangladesh as the second largest garment exporter in the world. One of the major factors was a preferential trade agreement signed between Vietnam and the EU-27, that came into force in 2020.²⁵

f) Workplace Safety

Some workplace incidents in the early 2010's had raised concerns about workplace safety in Bangladesh's garment industry, causing some buyers to stop purchasing from the country, and even led the United States to withdraw its preferential tariff agreement (GSP) in 2013.²⁶ International pressure led to the formation of Accord on Fire and Building Safety in Bangladesh and Alliance for Bangladesh Worker Safety.²⁷ While improvements have been made in the workplace environment, there is still risk of such issues that can push away the buyers in future (Sarker 2018).

g) Logistics and Infrastructure

As per World Bank's Logistics Performance Index, Bangladesh dropped from 79 in 2010 to 100 in 2018 in the overall ranking. On the other hand, Vietnam improved its ranking from 53 to 39 during the same period. A World Bank report in 2019, "Moving Forward: Connectivity and Logistics to Sustain Bangladesh's Success", noted that to fulfill the needs of its growing economy and to boost export growth, Bangladesh needs to improve its transport and logistics systems (Matías et al. 2019). It further argues that efficient logistics has become one of the main drivers for global trade competitiveness and export growth and diversification. Bangladesh can significantly boost export growth, maintain its position as a leading ready-made-garments and textile producer, and create more jobs. The report highlights that congestion on roads and in seaports, high logistics costs, inadequate infrastructure, distorted logistics service markets, and fragmented governance impede manufacturing and freight, further eroding Bangladesh's competitive edge and putting its robust growth path at risk.

VII. Concluding Remarks

Bangladesh's garment story is one of success, especially when it is judged by the numbers and the impacts it has on its social and economic lives. Apparel industry has been a major FX earner for Bangladesh, accounting for over 80 percent of national exports. Its contribution to GDP has multiplied 4.5 times between the early 1990's and 2019; GDP per capita also rose 6.1 times in the same timeframe, which is higher compared to India's 5.7 and Pakistan's 3.5 in the comparable

 $^{^{24} \} Source: un.org/development/desa/dpad/2021/graduation-of-bangladesh-lao-peoples-democratic-republic-and-nepal-from-the-ldc-category/$

²⁵ The Agreement will scrap duties on 99% of all goods traded between the two sides.

https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1412

²⁶ It may be noted here that the GSP facility didn't cover garment exports, but its repudiation showed the impact of those incidents on buyer countries.

²⁷ The Accord is an independent, legally binding agreement between brands and trade unions to work towards a safe and healthy garment and textile industry in Bangladesh. The Alliance for Bangladesh Worker Safety (Alliance) is (was) a legally binding, five-year commitment (2013-2018) to improve safety in Bangladeshi ready-made garment (RMG) factories. Sources: https://bangladeshaccord.org/; https://www.bangladeshworkersafety.org/who-we-are/about-the-alliance

²⁸ Source: World Bank's Logistics Performance Index reports for 2010 and 2018

period.²⁹ The apparel industry is the single largest wage-distributing industry in the country, generating 40 percent of total manufacturing employment. It employs around 4.5 million workers, providing livelihood to 10 million people directly or indirectly.³⁰ The industry has particularly improved the social and economic lives of women, who make about 80 percent of the garment workers. It has made worthwhile contributions towards betterment of social indicators, including child and maternal mortality, life expectancy, net primary enrolment rate, women's economic participation, and gender parity in primary and secondary education (Raihan 2010). According to the World Bank, poverty declined from 43.5 percent in 1991 to 14.3 percent in 2016.³¹ From being one of the poorest nations in the 1970's, Bangladesh reached lower middle income status in 2015, and is on track to graduate out of the UN's Least Developed Countries (LDCs) list in 2026.³²

Journey of Bangladesh's apparel industry had started in the late 1970's when Korean firms, with the intention of 'quota hopping', came to Bangladesh and laid the foundation stone of its apparel industry. Some export-promoting policies of the government—particularly back-to-back letter of credit and bonded warehouses—also served the apparel sector well due to some systemic biases in its favor, maximizing the opportunity that came Bangladesh's way in the form of Multi Fiber Agreement (MFA) quotas. End of the Agreement in 2004 sounded off alarm bells for the still-developing apparel industry of Bangladesh. Nonetheless, dispelling critics' estimations, the country did much better than anticipated during the new era of open competition. It competed well with others on price, capacity, and quality. Low labor cost, backward integration—particularly in the knit segment, preferential trade agreements (EU-GSP being the most important), and product and process upgrading at 21 large firms helped propel the country to become the second-largest garment exporter in the world.

Notwithstanding its success in the garment sector, the country also faces some challenges going forward: concentrated products portfolio and markets, long lead times relative to competitors, rising competition—from Vietnam in particular, low productivity amidst eroding wage-based competitiveness, workplace safety, and logistics. One of the gravest challenges lies in Bangladesh's graduation out of LDC status in 2026, which will stop its preferential access to many markets, including its largest buyer—the EU-27. Bangladesh will have to mend its ways and successfully navigate through these challenges to stay competitive and relevant to the global apparel market. One of the sustainable ways to achieve that is by upgrading labor-based competitiveness to productivity-based competitiveness across the entire textile and apparel value chain.

That being said, Pakistan can learn from the experience of Bangladesh in boosting apparel exports. In that, it can replicate the latter's successful use of back-to-back letter of credit and bonded warehouses to procure quality imported raw materials and intermediary products at world prices. Pakistan's textile industry is mostly dependent on domestic sourcing of these products; however, due to the declining cotton quality and availability, the industry needs to source better quality, high-count cotton primary and intermediary products from the international market, as does Bangladesh. Moreover, since the world demand is transitioning towards man-made fibers, its duty-free imports can help to diversify Pakistan's concentrated apparel basket; doing so, it can also increase its share in the world apparel market. Pakistan's garment maker firms should also get into joint ventures with foreign firms, as did Bangladesh. Such ventures can help transfer necessary capital, technology, managerial, and marketing skills, which will bring about necessary process upgrading, product upgrading and functional upgrading.

 $https://www.worldbank.org/en/country/bangladesh/overview\#: \sim: text = Bangladesh\%20 tells\%20 the\%20 world\%20 a, (LDC)\%20 list\%20 in\%202026$

²⁹ Data source: World Development Indicators (2022)

³⁰ Source: Bangladesh Garment Manufacturers and Exporters Association 2015

³¹ Based on the international poverty line of \$1.90 a day (using 2011 Purchasing Power Parity exchange rate. Source: World Bank https://www.worldbank.org/en/country/bangladesh/overview#:~:text=Bangladesh%20tells%20the%20world%20a,(LDC)%20list%20in %202026

³² Source: World Bank

Acronyms

ASYCUDA Automated System for Customs Data

BGMEA Bangladesh Garments Manufacturers and Exporters Association

CMT Cut-Make-Trim

EDF Export Development Fund

EU European Union

FOB Free on Board

FX Foreign Exchange

GDP Gross Domestic Product

GSP Generalized Scheme of Preferences

LDC Least Developed Country

MFA Multi Fibre Agreement

RMG Ready-made Garments

ROO Rules of Origin

SAARC South Asian Association for Regional Cooperation

UK United Kingdom

US/USA United States of America

USDA United States Department of Agriculture

References

Ahmed, N. (2009). Sustaining ready-made Garment Exports from Bangladesh. Journal of Contemporary Asia. 39(4): 597-618

Ahmed, F. Z & Greenleaf, A. and Sacks, A. (2013). The Paradox of Export Growth in Areas of Weak Governance: The Case of the Ready-made Garment Sector in Bangladesh. *World Development*. Volume 56

Akter, P. (2020). An Overview of the Ready-Made Garment (RMG) Sector of Bangladesh: From Origin to the Current State of Pinnacle. Kyushu University Graduate School of Economics

Asian Center for Development (2015). Garment Workers in Bangladesh: Social Impact of the Garment Industry. Dhaka. Bangladesh

Bhattacharya, D., Rahman, M., & Raihan, A. (2002). Contribution of the RMG Sector to the Bangladesh Economy. Centre for Policy Dialogue Occasional Paper Series, Paper 50, pp. 1–26. Dhaka. Bangladesh.

Clark, C., & Kanter, S. (2011). Violence in the Ready-made Garments (RMG) Industry in Bangladesh. *International Journal of Business and Management*. 7(3), 1833-8119

Bhattacharya, D. & Rahman, M. (2000). Experience with Implementation of WTO-ATC and Implications for Bangladesh. Centre for Policy Dialogue Working Paper 7. Dhaka. Bangladesh.

Department of Textiles [DOT (2009)]. Survey of the Bangladesh Textile Industry to Assess the Requirement of Textile Technologists. Bangladesh Department of Textiles. Dhaka. Bangladesh

Dowlah, C. A. F. (1999). "The Future of the Readymade Clothing Industry of Bangladesh in the Post-Uruguay Round World. *The World Economy*. 22 (7): 933–953

Gu, Y., Nayyar, G. & Sharma, S. (2021). Gearing Up for the Future of Manufacturing in Bangladesh. World Bank, Washington, DC.

Jassin-O'Rourke Group, L. (2008). Global Apparel Manufacturing Labor Cost Analysis 2008. Textile and Apparel Manufacturers & Merchants. Retrieved from http://www.tammonline.com/researchpapers.htm

Khan, A. (2021). An Empirical Study on Lead Time of Readymade Garments in Bangladesh. National Institute of Textile Engineering and Research (NITER). Dhaka. Bangladesh

Lu, S. (2018). Wage level for the Garments Worker in the World (updated in 2017). Retrieved from https://shenglufashion.com/2018/03/04/wage-level-for-garment-workers-in-the-world-updated-in-2017/

Moazzem, K.G. & Ahmed, T. (2021). Implications of COVID-19 for Bangladesh's Graduation from the LDC Status. CPD Working Paper 140. Centre for Policy Dialogue. Dhaka. Bangladesh

Moazzem, K.G., and Sehrin, F. (2016). Economic Upgrading in Bangladesh's Apparel Value Chain during the Post-MFA Period. *South Asia Economic Journal*. Volume. 17, 1: pp. 73-93

Matías, H.D., Kunaka, C.; Lebrand, M.; Weisskopf, N. (2019). Moving Forward: Connectivity and Logistics to Sustain Bangladesh's Success. International Development in Focus. World Bank. Washington. US.

McKinsey and Company (2011). Bangladesh's Ready-made Garments Landscape: The Challenges of Growth. doi: https://www.mckinsey.com/~/media/mckinsey/dotcom/client_service/consumer%20packaged%20goods/pdfs/bangladesh_ready_made __garment_landscape.ashx

McKinsey and Company (2021). What's next for Bangladesh's garment industry, after a decade of growth? doi: https://www.mckinsey.com/industries/retail/our-insights/whats-next-for-bangladeshs-garment-industry-after-a-decade-of-growth

Mia, S. and Akter, M. (2019). Ready-Made Garments Sector of Bangladesh: Its Growth, Contribution and Challenges. *Economics World*. David Publisher. Vol. 7, No. 1, 17-26

Mlachila, M. and Y. Yang. (2004). The End of Textile Quotas: A Case Study of the Impact on Bangladesh. Washington, DC. International Monetary Fund, IMF Working Paper, WP/04/108

Raihan, M. A. (2010). Handloom: An Option to Fight Rural Poverty in Bangladesh. *Asia-Pacific Journal of Rural Development*. 20(1), 112–130.

Razzaque, M.A. (2021). En Route to LDC Graduation: Firm-Level Preparedness in the Textile and Clothing Sector. United Nations, New York, US

Rhee, Y. W. (1990). The Catalyst Model of Development: Lessons from Bangladesh's Success with Garment Exports. *World Development*. 18(2), 333–346

Rock, M. 2001. Globalization and Bangladesh: The Case of Export-Oriented Garment Manufacture. South Asia: Journal of South Asian Studies. 24 (1): 201–225

Rock, M. (2003). "Labor Conditions in the Export-oriented Garment Industry in Bangladesh. South Asia: Journal of South Asian Studies. 26 (3): 391–407.

Saheed, H. (2008). Prospects for the Textile and Garment Industry in Bangladesh. Textile Outlook International. 135: 12-48

Samantha, S. (1998). The Multi-Fibre Arrangement - A Thread of Protectionism. Retrieved from https://www.tcd.ie/Economics/assets/pdf/SER/1998/Samantha_Smith.html

Sarker, M.M.I. (2018). Garments Exports in Bangladesh: The Unexpected Success Story. *Social Scientist* Vol. 46, No. 9–10 (544–545) (September–October 2018), pp. 61-70

Staritz, C. and Frederick, S. (2012). Sewing Success? Employment and Wages Following the End of the Multi-Fibre Arrangement, edited by L. G. Acevedo and R. Robertson, 214–242. Washington, DC: World Bank.

Staritz, C. (2011). Making the Cut? Low-Income Countries and the Global Clothing Value Chain in a Post-Quota and Post-Crisis World. World Bank Study. World Bank

Swazan, I.S. & Das, D. (2022). Bangladesh's Emergence as a Ready-Made Garment Export Leader: An Examination of the Competitive Advantages of the Garment Industry. Journal for Global Business and Community.

World Bank (1989). Bangladesh - Export Development Project (English). Washington, D.C: World Bank Group. http://documents.worldbank.org/curated/en/696081468003907465/Bangladesh-Export-Development-Project

World Bank (2005). End of MFA Quotas—Key Issues and Strategic Options for Bangladesh Readymade Garment Industry. Bangladesh Development Series Paper 2, Poverty Reduction and Economic Management Unit, World Bank, Dhaka.

World Bank (2021). Creating Markets in Bangladesh: Unleashing the Private Sector to Sustain Development Success. Washington, US

World Bank (2012). Consolidating and Accelerating Exports in Bangladesh. Bangladesh Development Series No. 29. World Bank, Dhaka. https://openknowledge.worldbank.org/handle/10986/26887 License: CC BY 3.0 IGO

Yang, Y. and Mlachila, M. (2007), The End of Textile Quotas: A Case Study of the Impact on Bangladesh. *Journal of Development Studies*. 43(4):675-699.

Yunus, M.O. & Yamagata, T. (2012). The Garment Industry in Bangladesh. In: Fukunishi, T., Ed., Dynamics of the Garment Industry in Low Income Countries: Experience of Asia and Africa, Interim Report, ChousakenKyu, Huokokusho, IDE-JETRO, Chapter 6