IMPROVING
COMPETITIVENESS
OF VISCOSE STAPLE FIBRE SECTOR THROUGH TARIFF REDUCTION

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Executive

Summary

Among a number of issues addressed by this Report, three summarise the main areas of policy concerns.

One is in line with the statement of India's Finance Minister regarding removal of inverted tariffs. In paragraph 117 of the Budget Speech,[1] the Finance Minister stated that:

> *"I propose to undertake a comprehensive review of the rate structure over the next six months to rationalise and simplify it for ease of trade, removal of duty inversion and reduction of disputes."*
> *(emphasis added)*

The inputs of Viscose staple fibre (VSF) are subject to positive import tariffs, but over 80% of the imports of core VSF enter India at zero tariff because of free trade agreements (FTAs) with ASEAN countries. The purpose of removing inverted tariffs is to remove the perverse situation where a country's own policies provide negative protection to a product made domestically, reducing the competitiveness of the product (in this case, VSF).

This is doubly valid if the main competing economies have a more facilitating tariff regime for the input. The analysis in the Report shows that the actual situation is one where the main competing economies have zero tariff for the main input, dissolvable wood pulp (DWP), while India has a positive tariff on imports of DWP.

Second is the fact that demand for VSF in India is rising much faster than the average growth rate in other parts of the world. At present, the volume of India's domestic production of VSF is adequate to meet domestic demand. However, given the reduced competitiveness due to policy and the strong rise in demand, by 2030, India's volume of domestic production will be enough to meet only 70% of the domestic demand for VSF. Thus, 30% of the domestic demand in 2030 will be met from imports, a situation which will get worse if investment is not encouraged.

In effect, the situation in the future will be that instead of achieving the major national objective of increasing Atma Nirbharta, the industry will experience lower and lower levels of Atma Nirbharta. In this situation, the only way to move towards Atma Nirbharta is reduce operational costs to incentivise investment in the domestic VSF sector so that domestic production rises more than otherwise likely. Removal of the inverted tariff is obviously part of the solution leading towards greater investment in production of VSF in India.

Third is the immense growth of India's imports of Viscose staple yarn (VSY) from China, such that 70% of India's imports of VSY come from China. The immense growth of China's VSY exports to India is evident from the fact that by 2023 India's VSY imports from China had increased massively to become 30 times the level in 2016. China, the largest global exporter of VSY, now sells one-fourth to one-fifth of its global exports to India, strongly up from a low share of 1.1% in 2016. Addressing this situation will also need improving the competitiveness of Indian VSF and VSY production, which would be achieved, among others, through removal of inverted tariffs.

[1] *See, https://www.indiabudget.gov.in/doc/budget_speech.pdf*

Introduction

After the post-COVID downturn, the Indian Viscose Staple Fibre (VSF) industry began to rebound in 2023, due to rising demand for clothing made with VSF globally. Demand for home textiles increased particularly in the US and EU regions.[2] However, in the domestic market, there was a muted increase in demand for VSF-based textiles and garments in 2023. The VSF textile value chain comprises of 5 stages, namely pulp, fibre, yarn, fabric and garments in that order. The US trade restrictions on China, resulted in dumping of VSF yarn from China into the Indian market, putting a severe pressure on profitability of VSF and VSF based yarn in India. Moreover, FY25 is expected to be a year of weak market conditions with continuous pressure on margins and profitability in general.

Globally the fibre mix is inclined towards use of Man-made fibres compared to cotton (72% MMF).[3] **Within the fibre basket, VSF consumption globally in 2023 was approximately 6.5% of all fibres and is expected to grow to over US$18bn in 2030.** The compound annual rate of growth of VSF industry is likely to be around 6% per annum. At 10.4%, the corresponding average annual growth of demand in India is expected to be much higher.

The Problematic

Domestic VSF manufacturers face dual competition – one from international VSF manufacturers, and secondly from other fibres. India, China, Thailand, Indonesia, Taiwan, Germany, are major producers of viscose. Many of the international players source key inputs of VSF at zero duty. In contrast, India has inverted tariffs, a situation which will now be reviewed for improvement as per the Budget Speech of the honourable Finance Minister this year.[4]

While in India a substantial portion of imported finished product (VSF) is imported at zero duty. the raw materials of VSF have positive import duties imposed on them. These duties range from 2.75% (2.5% + 10% cess) on Dissolvable Wood Pulp (DWP) to 11% (10% + 10% cess) on finishing. Thus, India's domestic manufacturers are put in a disadvantageous position. The steady increase in DWP imports for the past five years is indicative of a growing VSF market.

For producing VSF, DWP is a key input accounting for over 66% of the total variable costs. Its domestic capacity is relatively limited because of lack of appropriate grade of wood in India. In the past four years over 90% of India's consumption has had to be imported. Tariffs on a product which is an essential raw material for the production of VSF and cannot be produced in India is not only cost distorting but easily correctible through a reversal of tariffs.

The discussion in this paper shows that tariffs on inputs for VSF increase the cost of production of VSF substantially for the domestic manufacturer and have a cascading effect on downstream production of VSF based products. Also, tariffs on DWP depress exports of VSF.

While tariffs on inputs of VSF increase costs, a large part of the imports of core VSF enter duty free into India because of free trade agreement with major suppliers (Indonesia, Singapore, Thailand). In 2023, 83.3% of Core VSF imports entered India duty-free, while 100% of the main input (DWP) entered at positive tariffs.

This is a clear example of inverted tariffs which the Finance Minister wants to remove, as per her statement in the Budget Speech.

The discussion in the paper shows that with a removal of tariffs for the key inputs of VSF, investment

[2] *https://www.grandviewresearch.com/industry-analysis/home-textiles-market*

[3] *https://texmin.nic.in/sites/default/files/Indian%20Manmade%20fibre%20textile%20industry_0.pdf*

[4] *Paragraph 117 of https://www.indiabudget.gov.in/doc/budget_speech.pdf*

also be incentivised to increase, thus raising the presence of domestic industry in a growing domestic market. Without such investment, the objective of Atma Nirbharta would keep on being eroded and the share of imports in Indian VSF and Viscose staple yarn would keep increasing.

Industry Structure

The VSF global market was estimated at USD 12 billion in 2023 and is projected to reach over USD 18 billion by 2030. The demand for VSF is growing because of an increasing focus on the circular economy as shown by the UNSDGs too. The ability of VSF to be recycled and reused aligns well with the growing circular economy principles, creating a favorable increase in demand. VSF is also used in hygiene products, furniture upholstery, and industrial wipes. High-performance and functional viscose fibers with properties like flame retardant and moisture management are gaining traction, opening new market avenues. VSF is used in both woven and non-woven forms.

By end-use industry, apparel and clothing has the largest share, followed by healthcare, automotive and other industries. The others category is predicted to increase at the fastest rate. By Region, largest markets are in North America, Europe, Asia Pacific, Latin America, and Middle East & Africa in that order.

Production of Viscose Staple Fibre (VSF) requires Dissolving Grade Wood Pulp (DWP), Caustic Soda, Natural Gas, and Sulphur. The respective shares of these major inputs in variable cost are 66%, 13%, 13% and 2%. India has a very small domestic production of DWP, but has a significant presence in the VSF market. With inverted duties addressed through policy, India would have a larger presence in VSF markets, and would increase Atma Nirbharta.

Import Surges and the China Factor

In the period 2023 to 2030, Indian mill demand for VSF is expected to increase at average annual growth rate of 8% per annum. Given the adverse policy conditions, the increase in domestic production capacity of VSF is likely to grow at an average annual rate of only 3% per annum. This will result in a massive rise in the volume of VSF imports, whose average compound annual growth is expected to be 30% per annum. In contrast, the volume of VSF exports is likely to fall at a compound annual rate of -3.4% per annum.

Major Rise in Imports from China

Given the large domestic market of India and very little domestic supply of DWP, India is the second largest importer of both DWP and Viscose Yarn. Indonesia is the largest exporter of core VSF and China the largest exporter of Viscose yarn to India.

The capacity of China for VSF is exceptionally large, accounting for two thirds of the global capacity for producing VSF. Both on account of this huge VSF capacity and financial and other support provided by Government of China, China is in a position to export VSF yarn at relatively cheap prices.

The high growth rate of India's domestic market has attracted the attention of China and Indonesia, particularly China, towards the Indian market. India's imports of viscose yarn from China have shot up immensely. The market share of China in India's imports jumped, with almost one fifth to one quarter of China's global exports of Viscose Yarn being sold to India. For India, China's share in its import is around 67% of its total imports of viscose yarn. In 2023, these imports were 30.3 times the level on Indian imports of Viscose yarn from China in 2016.

This is a situation which requires specific attention so that India's import dependence for viscose yarn does not create uncertainty and over-reliance on China as a single largest source in the value chain for the country. One important part of the solution is removal of inverted tariffs to increase competitiveness of Indian VSF production to make Viscose yarn domestically.

Impact of Tariffs and Inverted duty structure on costs

A simple way of estimating the cost effect of tariffs on VSF is to multiply the share of cost of an input by its tariff and aggregate these effects. **Impact on costs = Share of input in total cost multiplied by tariff on specified input.** These costs are aggregated over all inputs. An important result of import tariff is that the price of the locally produced input also rises close to that of the imported input. In the case of DWP, virtually the entire amount consumed in India is imported.

An important aspect of tariffs is that the applicable tariffs on a product from a specific country depends upon whether or not India has an FTA with the country. Therefore, for every product, the imports from each country and the relevant tariff (MFN or preferential) need to be taken into account. Based on the import shares and relevant tariffs, a weighted average import tariff is calculated for each input (see Table 1 below). In contrast, Table 2 shows that all the imports of the main input (DWP) were supplied by countries which face tariffs of 2.75%.

Table 1. Weighted Average Tariff on Main Inputs for VSF Due to Import Duty on Inputs

Input	MFN Tariff India	Weighted Average Tariff, 2023	Share in Variable Cost	Rise in Cost due to Tariff
DWP	2.5% + 10% cess	2.75%	66%	1.815%
Caustic Soda	7.5% + 10% cess	4%	13%	0.52%
Sulphur	2.5% + 10% cess	1.3%	2%	0.03%
Finishes	10%+10% cess	6.6%	1%	0.06%
Total of Above			82%	2.43%

Source: ITC trade map.

Table 2. Top Countries from Which India Imports DWP (HS 4702)

	2018	2019	2020	2021	2022	2023
South Africa	32.0%	23.1%	29.2%	42.4%	52.8%	64.4%
Canada	20.5%	21.7%	24.5%	16.9%	16.6%	12.6%
Sweden	12.3%	8.1%	5.6%	5.6%	8.5%	11.3%
USA	12.1%	11.0%	7.1%	5.4%	6.2%	6.7%
Portugal	0.0%	0.0%	0.0%	0.2%	0.3%	1.7%
Chile	0.0%	0.0%	0.0%	1.0%	5.7%	1.2%
Austria	0.4%	0.1%	0.2%	0.2%	0.7%	1.0%
Germany	5.7%	8.5%	9.4%	8.6%	7.4%	0.7%
Brazil	0.0%	0.0%	0.5%	0.4%	0.4%	0.3%
Thailand	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Total of Above	83.0%	72.5%	76.6%	80.7%	98.6%	100%

Source: ITC trade map.

The tariff on inputs has an **impact on each of the downstream sectors.** The tariff effects on the cost of downstream products cumulates to 6%-6.6%. In each part of the value chain the effects of tariffs on inputs of VSF increases cost of production. The further downstream the product, the lower the effect, but in no part of the value chain is it zero.

In a market where margins are small and there is overcapacity, variable costs become the basis for comparison with comparator countries. In most cases, the DWP tariff is zero in comparator countries. This distortion in costs due to tariffs especially in comparison to comparator countries needs to be corrected. Hence there is a strong case for reducing tariffs of inputs of VSF to improve competitiveness and investment in the Indian industry.

Investment and profit effects of removing tariffs and correcting inverted duty structures

If tariffs on inputs of VSF are reduced to zero, the industry would get additional revenue from three sources.

(a) The revenue/profit on account of reduction of tariffs on inputs of VSF. If only the reduction of tariff on DWP is considered, the additional revenue amount would be INR 180 crore. Considering tariff reduction on all inputs imported, the additional revenue would be INR 206 crore.

(b) The revenue generated from additional sales in the market (domestic market and exports).

(c) The returns from new investment as the profit rate rises.

With the additional revenues, there would be an **increase in the Return** on Capital Employed (RoCE) of above 3.2%. Adding INR 206 crore to get the new RoCE in comparison to 2023, this would imply **an aggregate RoCE** of more than 5.6% for the domestic industry if inverted tariffs were to be removed (Table 3). Consequently, with removal of tariffs on inputs, an otherwise commercially unsustainable ongoing project would begin to be more attractive and sustainable.

Table 3. Increase in Profits of Industry compared to FY 2023 With Removal of Tariffs

1	2	3	4
	Average for Last 5 Years (FY 18 - FY22)	FY 2023: Industry Performance	FY 2023 Performance, If No Tariffs on Inputs (Adding INR 206 crore to Column 3)
PBDIT (INR cr.)	1,332	605	811 + Profit from Additional Sales
PBDIT (INR cr.)	1,035	156	362 + Profit from Additional Sales
PBDIT margin	16.7%	4.7%	6.3% + Profit from Additional Sales
PBIT margin	13.0%	1.2%	2.8% + Profit from Additional Sales
RoCE	18%	2.4%	5.6% + Profit from Additional Sales

Source: Industry Association and author's calculations

Notes:

(1) This estimate would actually be higher because these numbers do not include the profits from additional market gained by domestic industry due to reduction in costs.

(2) At the same time, the actual revenue gain for industry would be between INR 180 crore and INR 206 crore. Taking the estimate of INR 180 crore as additional revenue, the margins are as follows: 6.1% for PBDIT margin; 2.6% for PBIT margin; and 5.2% for RoCE.

Additional revenues would incentivise new investment:

Discussions with industry suggest that removing inverted tariffs on inputs and improving the operational conditions would **likely bring forth initial investment of about INR 1,200 crore to INR 1,5000 crore** to increase India's operational capacity of the domestic industry.

Revenue Neutrality of removing tariffs and correcting inverted duty structures

The increase in the industry's revenue will raise its profits by an equivalent amount, i.e., by INR 180 crore to INR 206 crores. From this, 25% will be paid as corporate income tax (i.e., INR 45 crore to 51.5 crores) to the Government.

The average cost reduction when bringing tariff of inputs to zero is 2.4% (Table 1). Estimates suggest that with this decline in cost, the corresponding increase in production and linked imports of DWP would be 1.4%. This is based on estimates calculated in a paper that has specifically looked at this issue.[5]

DWP is a key input in the production of VSF. A 1.4% increase in the 2023 DWP imports would result in a 1.4% increase in VSF production (domestic) as well. This would imply an increase in VSF production that would give an additional output of about INR 180 crore.[6] **There is a GST of 18% on VSF. This would give a revenue of INR 32.4 crore for the Government.**

Further, there would be a profit from the additional VSF production. **Considering two options, i.e., one-tenth or one-fifth of this as profit, a 25% tax on that would give revenue of INR 4 crore and INR 2 crore respectively for the two levels of profits considered.**

In a static context, i.e. considering only the current operational conditions and investment strategies of the domestic industry:

(a) the revenue loss from reducing tariffs on inputs of VSF is INR 206 crore;[7] and,

(b) revenue gain is (51.5 + 32.4 + 4) = INR 87.9 crore (for INR 206 crore).

For investment levels of INR 1,200 crore and INR 1,500 crore, the value of annual VSF output produced would respectively be INR 1,065.80 crore and INR 1,332.25 crore.

The additional revenue generated will be from tax on profits and GST on sales, The total revenue would more than cover the revenue loss for the Government when tariffs on inputs are removed.

Table 4. Government's Revenue Gain Resulting from Removing of Tariffs on Inputs of VSF

(A) Revenue Gain for the Government After Tariffs Decrease		
Revenue Range for Industry After Input Tariff Decreasing to Zero	INR 206 crore	INR 180 crore
Corporate Tax (@ 25% of Revenue)	51.5	45
GST on additional VSF production lower costs due to tariff decrease	32.4	32.4
Corporate Tax on additional profits from the Increase in VSF production	4 (for 10% profit)	2 (for 5% profit)
TOTAL OF ABOVE	87.9 (for 10% profit)	79.4 (for 5% profit)
Note: If 5% profit is considered, then the total corporate tax amount is INR 2 crores lower.		

[5] Pages 8 and 9 of the paper by Sumathi Chakravarthy, Sindhu Bharathi M., Divyayudha Khire, Badri Narayanan Gopalakrishnan, undated, "Potential Economic Impact of Fixing the Inverted Customs Duty Structure: The Case of Indian Viscose Fibers".

[6] Considering 1.4% of imports of DWP gives INR 91.5 crore for 2023. DWP is 66% of variable cost and about 50% of average costs. Therefore, an increase in VSF would be somewhat above INR 180 crores.

[7] The corresponding estimates for INR 180 crores are: the revenue loss is INR 180 crore; the revenue gain is INR (45 + 32.4 + 4 (or 2)) = INR 81.4 (or 79.4) crore.

(B) Revenue Gain for the Government with New Investment to Produce VSF			
Investment Level (Leading to Additional VSF production)		Net Revenue for Government (INR crore)	
INR 1200 crore	GST on VSF*	169.4	
	Corporate Tax	24.2 (for 10% profit)	12.7 (for 5% profit)
	TOTAL	193.6	182.1
INR 1500 crore	GST on VSF*	211.8	
	Corporate Tax	30.3 (for 10% profit)	115.9 (for 5% profit)
	TOTAL	242.1	227.7

GRAND TOTAL REVENUE FOR GOVERNMENT		
	INR 206 crore and 10% Profits	INR 180 crore and 5% Profits
	Grand Total	Grand Total
For Investment of INR 1200 crore	281.5	261.5
For Investment of INR 1500 crore	330	307.1

Note: * = The GST revenue on VSF is calculated after deducting the tariff revenue loss on inputs.

Recommendation

Thus, removing inverted tariffs on inputs for the VSF industry will create incentives for larger investment in the sector, leading to additional revenues for the Government. This would also increase the presence of the domestic industry in the market (increasing Atma Nirbharta). Not doing so would push India on the path of dependence on China and perpetuate the lack of competitiveness of the industry.

Chapter 1

Background of the Viscose Staple Fibre Industry

Introduction

After the post-COVID downturn, the Indian Viscose Staple Fibre (VSF) industry began to rebound in 2023, due to rising demand for clothing made with VSF globally. Demand for home textiles particularly increased in the US and EU regions.[8] However, in the domestic market, there was a muted increase in demand for VSF-based textiles and garments in 2023. The VSF textile value chain comprises of 5 stages, namely pulp, fibre, yarn, fabric and garments in that order. The US trade restrictions on China, resulted in dumping of VSF yarn from China into the Indian market, putting a severe pressure on profitability of VSF and VSF based yarn in India. Moreover, FY25 is expected to be a year of weak market conditions with continuous pressure on margins and profitability in general.

Globally the fibre mix is inclined towards use of Man-made fibres, compared to cotton (72% MMF).[9] **Within the fibre basket, VSF consumption globally in 2023 was approximately 6.5% of all fibres and is expected to grow to over US$18bn in 2030.** In India, the growth of VSF industry is pegged at 10.4% CAGR, higher than global growth of around 6%.[10]

Table 1.1 Growth in Demand of VSF

VSF Mill Consumption (Nos. in USD Million)	2023	2030	CAGR
North America	219	255	2.2%
Latin America	52	126	13.3%
West Europe	617	566	-1.2%
East Europe	54	172	18.0%
Turkey	439	827	9.5%
Africa/Middle East	187	315	7.8%
Australasia	1	2	2.0%
South Asia	1474	2071	5.0%
India	1449	2896	10.4%
China (with Hong Kong)	7452	10649	5.2%
South Korea	18	24	3.9%
Taiwan	161	83	-9.1%
Japan	27	35	3.9%
World	12151	18021	5.8%

[8] *https://www.grandviewresearch.com/industry-analysis/home-textiles-market*

[9] *https://texmin.nic.in/sites/default/files/Indian%20Manmade%20fibre%20textile%20industry_0.pdf*

[10] *Interview with Aditya Birla Group by Economic Times.*

Source: AMFII

With limited availability of cotton, man-made cellulose fibre (MMCF – made from wood pulp) growth will be much higher than cotton and other man-made fibre such as polyester. This makes MMCF a superior option on account of sustainability credentials, in addition to functional attributes like moisture management, soft feel and colour brilliancy. In terms of size, China and the United States are the main two garment retail marketplaces. In addition, Germany, the United Kingdom, and Russia have significant demand for clothing. While, India has one of the fastest-growing garment markets.

In the past, the VSF sector has benefited from government support such as the Scheme for Integrated Textile Parks (SITP) and the Amended Technological Upgradation Fund Scheme (ATUFS), as well as capital subsidies. The Quality Control Order (QCO) in 2023 is a positive initiative to ensure that only quality products enter the Indian market.[11] The QCO will help the entire VSF supply chain to maintain a high quality and adopt innovative and advanced technology to make quality products. It is likely to make India a reliable supplier of VSF textiles and garments to the world. In the future, government's support policies should be accompanied by tariff reductions on inputs to make the industry competitive.

The VSF industry has become more sustainable than it was a decade back. The manufacturing processes have reduced green gas emissions, by improving energy and water use efficiency. Using wood pulp from responsibly managed forest under FSC certification has increased the sustainability of the Indian industry. Further the industry is increasing the share of renewable energy to produce pulp and fibre. It is also exploring innovative options for alternative feed stock, including mechanical and/or chemical recycling of pre-and post-consumer textile waste, in order to become more sustainable.

Domestic MMCF manufacturers face dual competition – one from international VSF manufacturers, and secondly from other fibres. India, China, Thailand, Indonesia, Taiwan, Germany, are major producers of viscose. Many of the international players source inputs at zero duty. In contrast, India has inverted tariffs, a situation which will now be reviewed for improvement as per the Budget Speech of the honourable Finance Minister this year.[12] While in India the finished product (VSF) is imported mostly at zero duty (particularly for core VSF), the raw material (for e.g. DGWP import duty 2.5% + 10%) attracts import duties and cess, thus putting domestic manufacturers at a disadvantageous position.

Going forward, support from government is required to create a level playing field by correcting the inverted tax structure and by reducing or eliminating tariffs levies on inputs for fibre making. This will help domestic VSF industry to compete against international players, through the value chain in domestic market. This will also help India to grow its share of VSF and VSF based textiles in the international market.

The first section of this Chapter shows the global demand, the markets, and its geographic distribution. It also highlights the rate of growth in each segment to make India an important player in the market. In a way it sets the roadmap of where India wants to be in the next few years to be an important player in the global market. The next section sets out the challenges of getting there and finally section 3 outlines

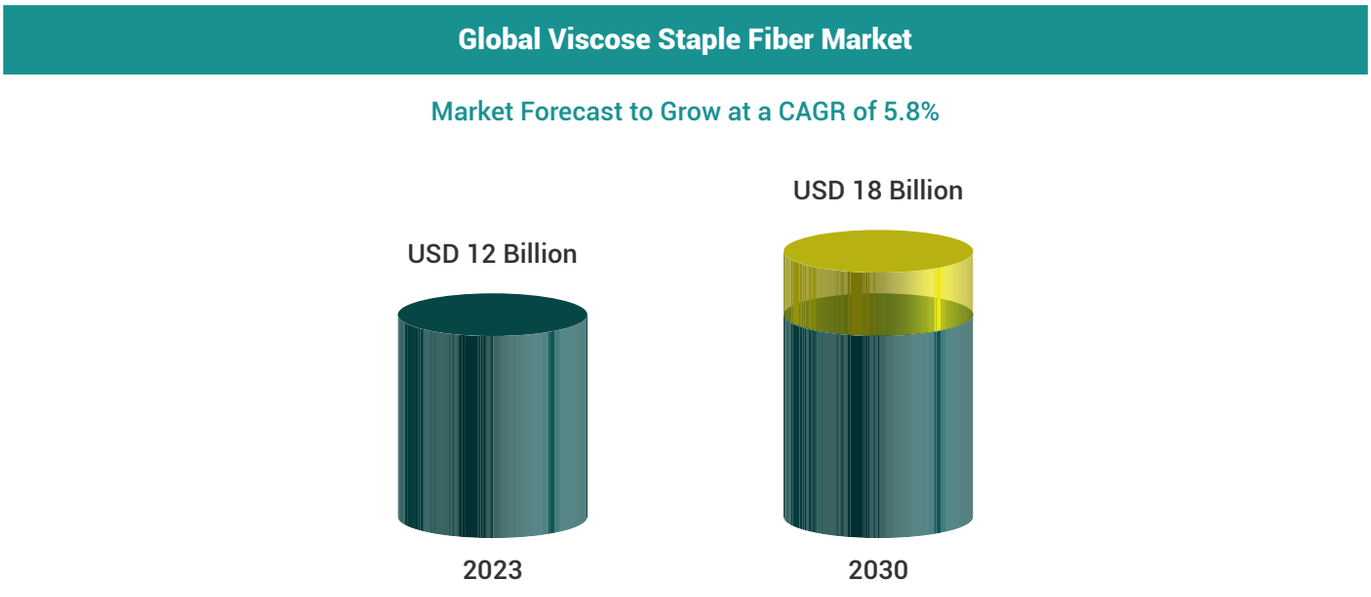
[11] *https://texmin.nic.in/sites/default/files/VSF_as_QCO.pdf*

[12] *Paragraph 117 of https://www.indiabudget.gov.in/doc/budget_speech.pdf*

1.2 Trends in Global Demand

The VSF market was estimated at USD 12 billion in 2023 and is projected to reach USD over 18 billion by 2030.[13] Key market drivers include technological advancements (innovations in production processes like lyocell and modal) leading to improved fiber quality and performance, growing awareness of sustainability, (VSF biodegradability and closed-loop production), economic growth in emerging economies (rising disposable incomes in developing countries). Other estimates pitch the increase at around the same level.

Figure 1.1: Global VSF Market Growth



Source: https://finance.yahoo.com/news/global-viscose-staple-fiber-market-151300592.html

The demand for VSF is growing because of an increasing focus on the circular economy as shown by the UNSDGs too. The ability of VSF to be recycled and reused aligns well with the growing circular economy principles, creating a favorable increase in demand. VSF is also used in hygiene products, furniture upholstery, and industrial wipes. High-performance and functional viscose fibers with properties like flame retardant and moisture management are gaining traction, opening new market avenues. VSF is used in both woven and non-woven forms. The different industries which use VSF is shown in Fig 1.2 below.

By end-use Industry, apparel and clothing has the largest share, followed by healthcare, automotive and other industries. The others category is predicted to increase at the fastest rate. By Region, largest markets are in North America, Europe, Asia Pacific, Latin America, and Middle East & Africa in that order.

Fig 1.2 shows the different geographies and usages of VSF. It also provides the forecasted growth till

[13] *https://www.linkedin.com/pulse/viscose-staple-fiber-market-global-uyjof/*

As per the report of Coherent Market Insights, the global markets are set to grow exponentially. Some examples of technological and sustainability advances in this space are as follows:

Sustainability Initiatives: Lenzing (Austria, 2020): Launched Eco Cycle fiber, a closed-loop VSF made from recycled textiles and wood pulp. Aditya Birla Group (India, 2023): Launched Liva Reviva, a VSF made from post-consumer textile waste.

Technological Advancements: Birla Cellulose (India, 2023): Launched Birla Accel, a high-wet-modulus VSF with improved strength and wrinkle resistance. Kelheim Fibres (Germany, 2022): Developed biodegradably enhanced VSF using a natural additive.

1.3 Trends in Growth of VSF in India

India's Ministry of Textiles Vision 2047 envisages the domestic market sizes to be $250 Bn for the entire Textiles and Clothing Sector, and exports projected to be of $100 Bn by 2030. According to this projection India should be exporting roughly 6-10 bn USD of VSF and VSF based products. **Production of VSF and VSF based products would need to be four times the current export level to meet the government's aspirations for 2030.**

However, the industry's internal VSF production, export & import projections for 2030 are considerably lower. Hence while the government's vision is that the VSF industry should grow by two and a half times, the industry at present has a much slower projection of a 25% growth. Table 1.1 below shows the existing and the forecasted demand for VSF by 2030 as estimated by the industry. The industry does not foresee significant investment by 2030, because of some important factors including the inverted duty structure, which adversely impacts the level playing field, tilting it against the domestic industry. Other factors include fluctuating global prices, the high cost of energy, supply disruptions in inputs because of the Russia Ukraine War, as well as high logistics costs. If the government removed select levies and duties which only applies to domestic manufacturers, while the competing foreign companies do not face such inverted tariffs, then it is likely that domestic manufacturers would expand capacity and invest in the sector.

Till domestic manufacturers invest in capacity expansion to meet mill demand of 2030, DWP requirement would be about 1385 KT, DWP domestic capacity is 75KT, and the rest 1310 KT will get imported. Table

Table 1.1 shows that at present, VSF domestic production is adequate to meet domestic demand. **However, by 2030, domestic production will meet only 70.1% of domestic demand. Consequently, the volume of VSF imports by India will increase at a compound annual rate of 30% per annum, and volume of VSF exports of India will fall at an annual compound rate of -3.4% per annum.**

Table 1.1: Domestic Capacity and Projected expansion for VSF

India VSF Products	CY23		CY30		CAGR	CAGR
	In KT	In million USD	In KT	In million USD	In Volume Terms	In value terms
Mill Demand	783	1449	1363	2896	8%	10%
India Production	798	1476	964	2049	3%	5%
Exports	81	150	64	136	-3.4%	-1.4%
Imports	72	133	462	982	30%	33%

Source: AMFII

Table 1.2: VSF and VSF based products imports in the last five years

Nos. in Mn $	FY20	FY21	FY22	FY23	FY24
India VSF Products Fibre Imports (Mn $)	154	122	188	319	131
India VSF Products Spun Yarn Imports (Mn $)	129	198	173	179	148
India VSF Based Products Fabric Imports (Mn	41	32	44	43	44

Source: Internal Analysis of the AMFII

Tariffs on DWP increase the cost of production of VSF substantially for the domestic manufacturer and has a cascading effect on downstream production of VSF based products. Also, tariffs on DWP are likely to depress exports of VSF as shown above in Table 1.1 by 2030. For producing VSF, DWP is a key input accounting for over 66% of the total variable costs. Its production capacity is relatively limited because of lack of appropriate grade of wood in India. In the past four years over 90% of India's consumption has had to be imported as shown by Table 1.3. The steady increase in DWP imports for the past five years is indicative of a growing VSF market. Tariffs on a product which is an essential raw material for the production of VSF and cannot be produced in India is not only cost distorting but easily correctible through a reversal of tariffs.

Table 1.3: DWP production, exports and imports for the past five years

Nos. in KT	FY20	FY21	FY22	FY23	FY24
India DWP Production	72	55	67	65	69
India DWP Imports	565	451	735	750	873
India DWP Exports	0	0	0	0	0

Source: AMFII

The stagnation in export trends of VSF and VSF based fibres over the past 5 years, when global demand was growing, is shown in Table 1.4. In VSF based garments for example, Indian exports have declined. It is to be noted from the earlier discussions, that garments occupy the largest share of the market for VSF based products and are also the most dynamic segment of this market. Trends over the last five years show a stagnant level of exports of VSF fibre, yarn and fabric exports. To meet the government's targets for this industry, India needs to improve its competitiveness by revising its tariff policy.

Table 1.4: Value of total VSF based products exported from India in the last five years

	FY20	FY21	FY22	FY23	FY24
India VSF Products Fibre Exports (Mn $)	148	114	205	121	139
India VSF Products Spun Yarn Exports (Mn $)	107	87	143	101	101
India VSF Based Products Fabric Exports (Mn $)	34	29	34	34	36
India VSF Based Products Garment Exports (Mn $)	2480	1670	2040	2300	2120
India VSF based Products Total T&A Exports (Mn $)	2769	1900	2422	2556	2396

Source: AMFII

Conclusions

This report addresses an important aspect that adversely affects competitiveness, namely inverted tariffs applied on raw materials used for the production of VSF. Given that there is a growing domestic and global market demand for VSF and VSF based products, there is a need for India to increase capacity, investment and competitiveness to capture a larger part of its domestic markets and meet global challenges. The inverted tariffs is a policy which holds back the domestic industry, and needs to be removed for creating a level playing field for the domestic industry. The next chapters develop the rationale for removing the inverted tariffs on inputs of VSF.

Chapter 2

Indian Viscose Sector: Growth Possibilities Limited by Policy

Introduction

The Indian market for Viscose products is increasing faster than the rest of the world. Normally, this would incentivise the Indian domestic industry to invest and produce Viscose Fibre (VSF) and Viscose Yarn for the downstream user industries. However, the policy, especially the tariff policy for this industry has created adverse conditions, as Indian cost of production is higher than imported downstream products which come at Nil duty (zero tariff) from FTA countries. This is especially so for core VSF, for which more than 80% of Indian imports come in at zero duty because of India's FTA with ASEAN. This creates significant competitive pressure on the Indian industry, limiting domestic investment and employment opportunities, and increasing imports into India.

The domestic industry loses competitiveness market share for four reasons:

(a) The tariffs on inputs of VSF raise costs of production, reducing competitiveness.

(b) The competitiveness-loss is more because the major exporters of VSF to India do not impose any tariffs on the main input, Dissolving Grade Wood Pulp (DWP), which accounts for 66% of the variable cost of VSF;

(c) The rise in cost due to tariffs on inputs results in loss of market share for the domestic industry;

(d) A large portion of the imports of VSF come in duty free into India.

To the extent that the issue of inverted duty has to be corrected, that can happen only with zero tariffs on inputs, especially on the DWP, the most significant input for VSF.

2.1. The Background

Production of Viscose Staple Fibre (VSF) requires Dissolving Grade Wood Pulp (DWP), Caustic Soda, Natural Gas, and Sulphur. The respective shares of these major inputs in variable cost are 66%, 13%, 13% and 2%. The global situation of supply capacity for DWP and VSF is shown in Table 2.1 below. India has a very small domestic production of DWP, but has a significant presence in the VSF market. With inverted duties addressed through policy, India would have a larger presence in VSF markets.

Table 2.1. Global Capacity of Key Nations for Dissolving Wood Pulp (DWP) and Viscose Staple Fibre - Global Capacity (% Share)

DWP - Global Capacity (% Share)		VSF - Global Capacity (% Share)	
22%	Indonesia	67%	China
15%	South Africa	11%	Indonesia
14%	Brazil	10%	India
7%	China	5%	Austria
6%	Austria, USA	3%	Thailand
5%	Canada, Chile, Laos, Sweden	1%	USA, Taiwan
4%	Czech Republic	0.4%	Japan
2%	Japan		
1%	India, Thailand, Portugal	2%	Others

Source: Association of Man-Made Fibre Industry of India, March 2024, on "Dissolving Wood Pulp - The Building Block of Competitiveness in Viscose".

The Indian market for Viscose products is increasing faster than the rest of the world. Normally, this would incentivise the Indian domestic industry to invest and produce Viscose Fibre (VSF) and Viscose Yarn for the downstream user industries. However, the policy, especially the tariff policy for this industry has created adverse conditions, as shown above. This is especially so for core VSF, as more than 80% of Indian imports come in at zero duty because of India's FTA with ASEAN. This creates significant competitive pressure on the Indian industry, limiting domestic investment and employment opportunities, and increasing imports into India.

2.1 (a) China's Huge VSF capacity – A Potential Implications

The capacity of China for VSF is exceptionally large, accounting for two thirds of the global capacity of producing VSF. Both on account of this huge VSF capacity and the financial and other support the Government of China provides to its producers, China is in a position to export the product at relatively cheap prices; China is the top-most importer of DWP, a key input for producing VSF (Table 2.2).

Table 2.2. Top Exporting and Importing Countries for DWP, 2023

Share in Global Exports of DWP, (2023, HS 4702)		
1	South Africa	17.8%
2	USA	13.8%
3	Brazil	12.9%
4	Indonesia	12.2%
5	Canada	6.2%
6	Sweden	6.1%
7	Laos	5.0%
8	Chile	4.2%
9	Czech Rep.	4.1%
10	Norway	3.9%
	India	0%

Share in Global Imports of DWP, (2023, HS 4702)		
1	China	57.2%
2	India	11.8%
3	Germany	6.0%
4	Indonesia	4.9%
5	USA	4.1%
6	Japan	3.3%
7	Thailand	3.1%
8	Malaysia	1.9%
9	Austria	1.2%
10	Sweden	0.8%

Source: ITC Trade Map

China's large capacity provides a basis for the country to be among the top two global exporters of VSF and Viscose staple yarn (see Tables 2.3 and 2.4 below). **Given the large domestic market of India and very little domestic supply of DWP, India is the second largest importer of DWP (Table 2.3 below).**

Table 2.3. Top Global Exporting Countries for VSF and Viscose Yarn, 2023

Share in Global VSF Exports (2023)		
1	Indonesia	33.4%
2	China	24.7%
3	Singapore	10.1%
4	Thailand	9.7%
5	Germany	8.3%
6	India	7.5%
7	Japan	1.8%
8	Malaysia	1.4%
9	Sri Lanka	1.2%
10	Taiwan	0.6%

Share in Global Exports of Viscose Yarn (2023)		
1	China	42.9%
2	Indonesia	21.5%
3	India	6.9%
4	Italy	4.3%
5	Türkiye	3.4%
6	Viet Nam	3.0%
7	Belgium	2.1%
8	Slovenia	1.7%
9	Croatia	1.5%
10	Germany	1.2%

Source: Association of Man-Made Fibre Industry of India and ITC Trade Map

2.1 (b) Implication of the large presence and over-capacity of Indonesia in this industry

Tables 2.1 to 2.3 show that Indonesia has the biggest DWP capacity in the world, and is one of the top two exporters of VSF and viscose yarn worldwide. At present, Indonesia's domestic mill consumption (299 KT) is only about 33% of its installed capacity (916 KT). Therefore, 67% of Indonesia's established capacity for producing viscose products is available for exports to international markets.

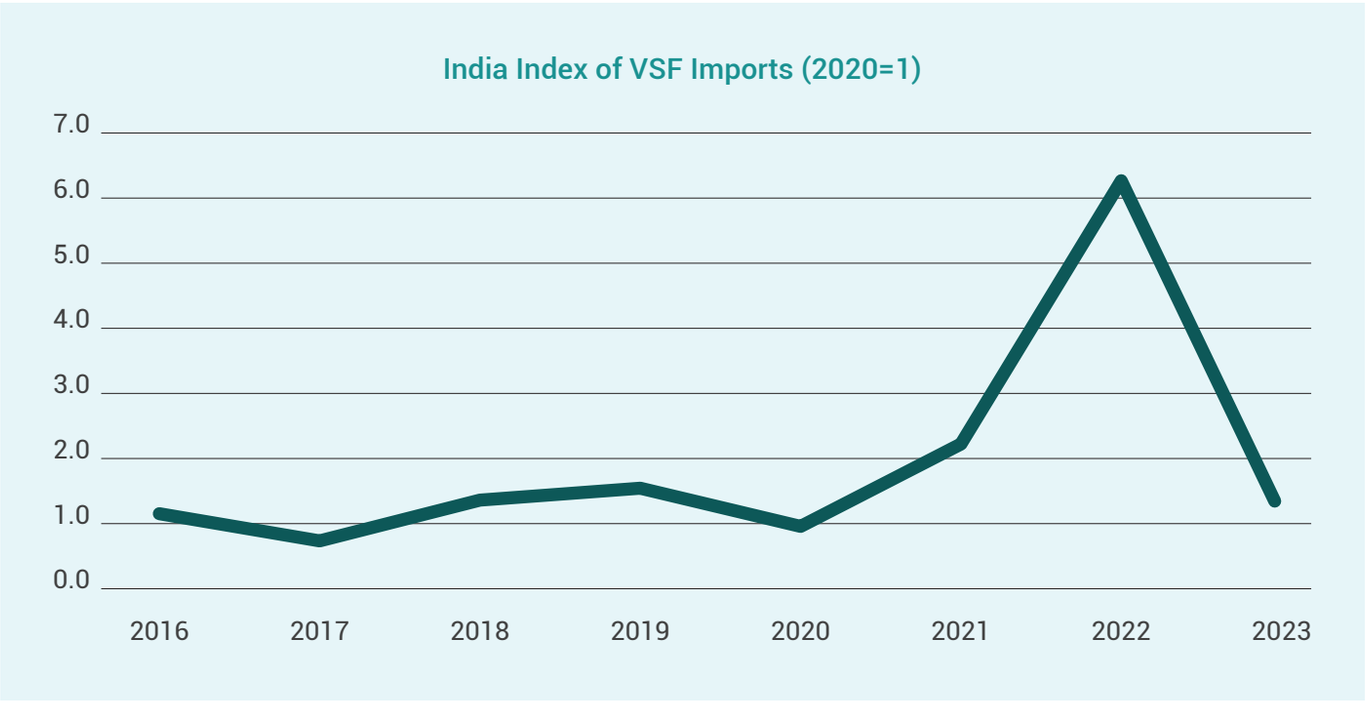
Indonesia not only has a large DWP capacity, but it has significant over capacity for VSF and Viscose Staple yarn compared to its domestic demand. In addition, the Indonesian Government treats textiles as a priority industry,[14] and provides a number of incentives such as investment incentives, tax incentives, customs duty incentives, and a number of non-fiscal incentives.[15] In addition, large companies within the Bonded Zones get incentives and have an obligation to export half their output. This implies that the companies give a major focus on exporting much of the additional production of their viscose products.

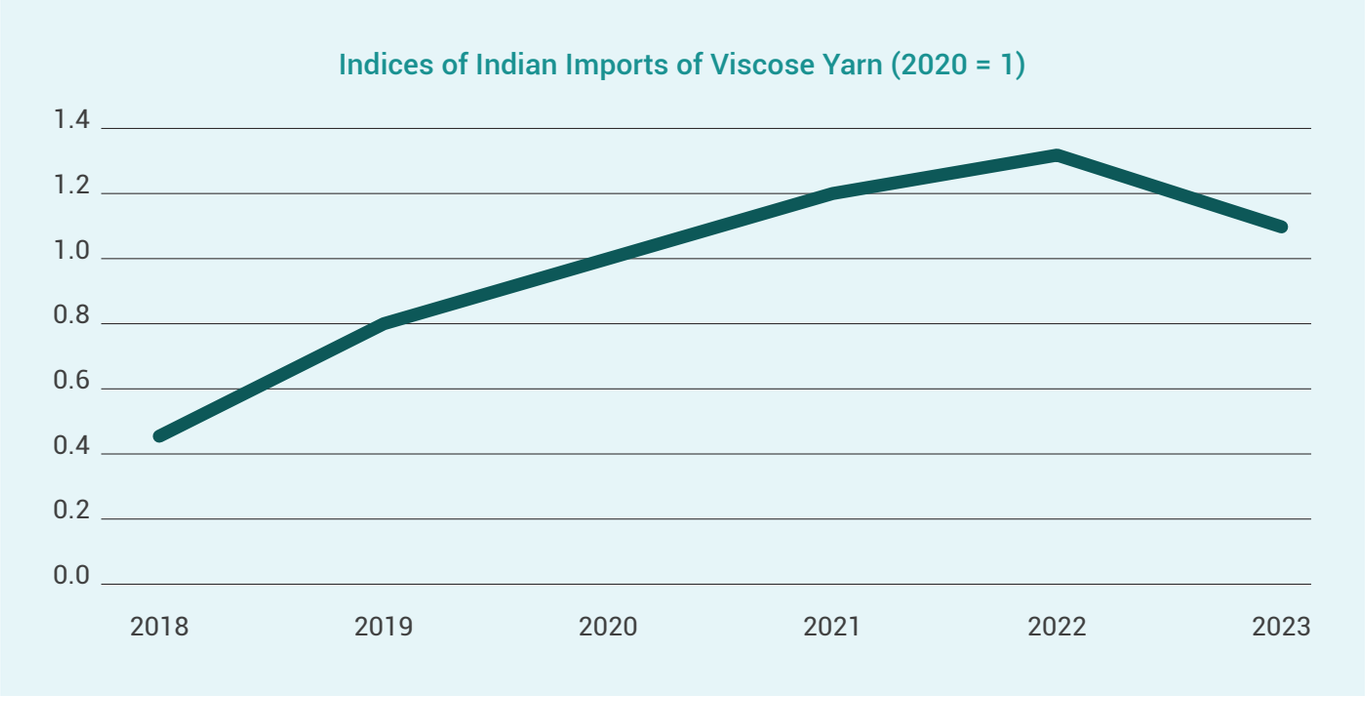
2.2. India's Performance and Outlook

Tables 2.3 and 2.4 above show that though India lacks the main raw material (DWP), it does figure among the top global exporters of VSF and Viscose Yarn. However, they are underperforming because the Indian industry faces inverted tariffs which reduce their competitiveness. Thus, India's share in imports of the viscose products exceeds it share in export of these products.[16]

Further, as the discussion in Chapter 1 shows, India's demand for VSF products will be higher than for other parts of the world. This will require increasing imports of all the viscose products, i.e., DWP, VSF and Viscose staple yarn. This is indicated for instance by Figure 2.1 below, which shows the rise in imports of VSF and yarn in recent years, in comparison to the level in 2018.

Figure 2.1. Rise in Imports of VSF and Viscose Yarn by India, 2018 to 2023





Source: Industry Association and ITC Trade Map

[14] See pages 40 and 43 of https://bkpm.go.id/storage/file/pdf/1683512273.pdf

[15] See pages 29, 60, 62, 70, 127 of https://bkpm.go.id/storage/file/pdf/1683512273.pdf

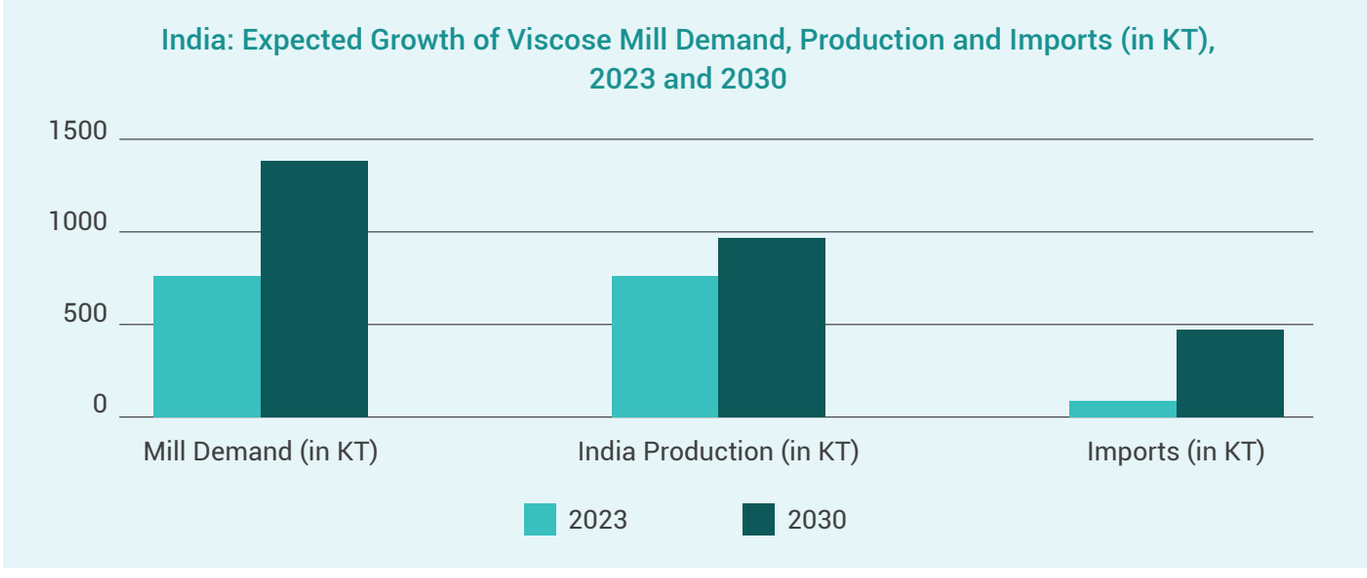
[16] A contrast is provided by Indonesia and China. Indonesia is among the major exporters of these products and not major importer. China is a major exporter for both products, but an important importer for only one of them. Even in that situation, its export share is far larger than its import share.

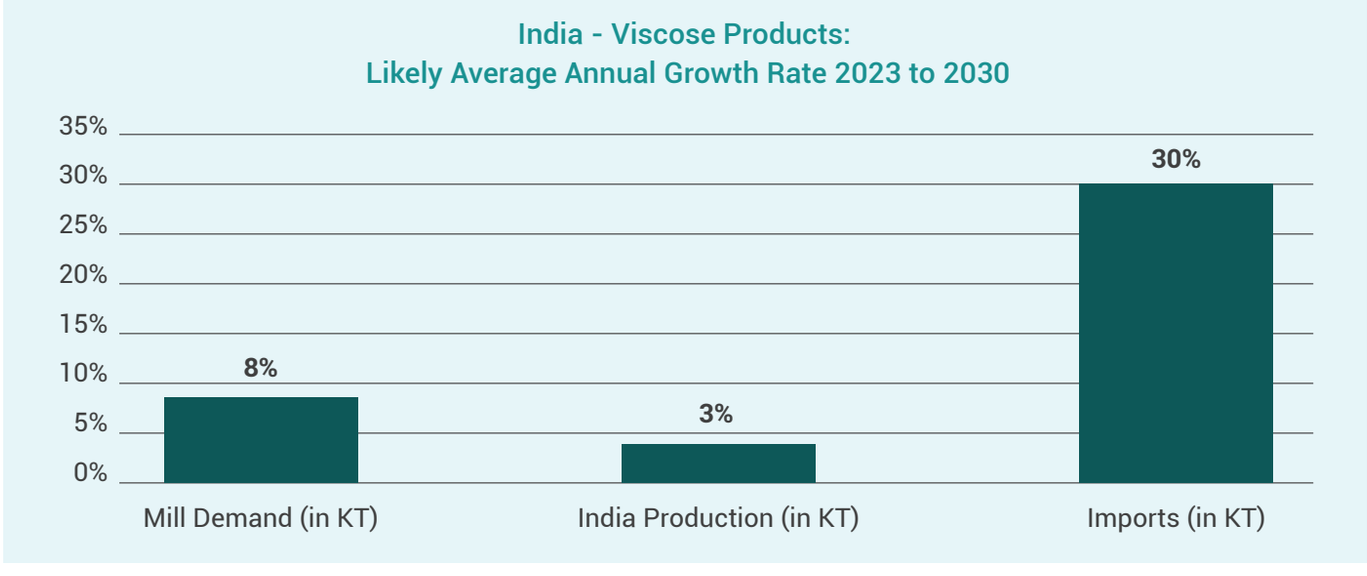
2.3. With Current Adverse Policy, Huge Import Increase Likely for India during this decade

India will have strong growth in its domestic market. However, increase in India's domestic production capacity will remain subdued primarily due to adverse policies like the inverted tariff regime, which decreases profitability and reduces investment by the domestic industry. Hence the VSF industry will find it difficult to attain Atma Nirbharta.

This situation is shown in Figure 2.2. In the period 2023 to 2030, Indian mill demand will likely increase at average annual growth rate of 8% per annum. Given the adverse policy conditions, the increase in domestic production capacity to provide the viscose products is likely to grow at an average annual growth of only 3% per annum. This will result in a massive rise in imports, whose average annual growth is expected to be 30% per annum. Removing the inverse tariffs on inputs will provide a positive impulse for investment, as shown in Chapter 3 below.

Figure 2.2. India: Expected Growth of Viscose Mill Demand, Production and Imports (in KT), 2023 and 2030





Source: Industry Association

2.4. Inverted tariffs for DWP imported into India

Table 2.4 shows the tariffs India imposes on the inputs for VSF, and compares those tariffs with the MFN tariffs imposed by some of the major competing countries of India. The most important input is Dissolvable Wood Pulp (DWP), for which India has a positive tariff, but the main competing economies have zero MFN tariff on this product (see also the discussion in Section 2.4(b) below).

In Table 2.4 below, China has a positive tariff for one input, i.e., Caustic Soda. With respect to China, certain features of the trade sector significantly dilute the impact of the MFN tariff. One, large parts of China's territory are designated as "Bonded Zones" and inputs imported into that zone are subject to zero tariff. Thus, even if the MFN tariff is positive, the actual tariff for production in bonded zones is zero. Further, in the case of Caustic Soda, for which China has a 5% MFN tariff, its imports are very small compared to its exports and production. For example, in 2022 and 2023, China's imports of Caustic Soda were USD 4.1 Million and USD 8.9 Million respectively and in comparison, China's Caustic Soda exports of USD1.23 billion and USD 727.8 million, respectively.

Table 2.4. Comparison of India's Import Tariffs on Key Inputs and the Tariffs of Key Competing Economies (that accounted for 85.7% of India's VSF imports in 2023)

Share in Variable Cost (%)		India: MFN Tariff	Indonesia	China	Thailand
Wood Pulp -DWP (HS 4702)	66%	2.5% + 10% cess	0%	0%	0%
Sulphur (HS 25030090)	2%	2.5% + 10% cess	0%	0%	0%
Natural Gas (HS 27112100)	13%	2.5% + 10% cess	0%	0%	0%
Caustic Soda (HS28151200)	13%	7.5% + 10% cess	0%	5%	3%
Finishes	1%	10% + 10% cess	0%	0%	3%

Source: Tariff Schedules of countries

Note: (1) The wood pulp is of dissolving grade, thus the acronym DWP.

2.4 (a) India Pays Positive Tariff on Import of DWP

Table 2.5 below shows the top ten countries from which India has imported DWP during the period 2018 to 2023. The total share of these countries in India's imports of DWP ranged between about three-fourths to 100%. All the countries from which DWP imports took place, are subject to a positive import tariff on the product.

India does not have a free trade agreement (FTA) with any of these economies except Thailand which has a very small share in India's imports of DWP. Imports of DWP from these countries into India are subject to MFN tariffs for DWP, i.e., 2.5% + 10% cess. An inverse tariff situation arises when there is an import tariff on inputs but zero (or lower) tariff on the downstream segment of the value chain, i.e. import of VSF.

Table 2.5. Top Countries from Which India Imports DWP (HS 4702)

Share in Variable Cost (%)	2018	2019	2020	2021	2022	2023
South Africa	32.0%	23.1%	29.2%	42.4%	52.8%	64.4%
Canada	20.5%	21.7%	24.5%	16.9%	16.6%	12.6%
Sweden	12.3%	8.1%	5.6%	5.6%	8.5%	11.3%
USA	12.1%	11.0%	7.1%	5.4%	6.2%	6.7%
Portugal	0.0%	0.0%	0.0%	0.2%	0.3%	1.7%
Chile	0.0%	0.0%	0.0%	1.0%	5.7%	1.2%
Austria	0.4%	0.1%	0.2%	0.2%	0.7%	1.0%
Germany	5.7%	8.5%	9.4%	8.6%	7.4%	0.7%
Brazil	0.0%	0.0%	0.5%	0.4%	0.4%	0.3%
Thailand	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Total of Above	83.0%	72.5%	76.6%	80.7%	98.6%	99.9%

Source: ITC Trade Map

2.4 (b) Those Exporting VSF to India Impose Zero Duty on their Imports of DWP

India imposes tariffs on DWP, which results in an increase in the cost of producing VSF. In contrast, the key countries exporting VSF to India do not levy import tariffs on their imports of DWP. The top six countries from which India imported VSF in 2023 are shown in Table 2.7. More than 99% of the VSF imported by India in 2023, came from these six countries. For all these countries, Table 2.6 below shows that they have zero MFN tariffs on DWP, which keeps their cost of production of VSF low. By imposing zero import duty on DWP, they are more competitive than India, which imposes positive tariffs on this important input.

Table 2.6. MFN Tariffs on DWP in Countries Which Are Major Suppliers of VSF and Viscose Staple Yarn Imports of India

Country →	Indonesia	China	Thailand	Austria	Singapore	UK
MFN Tariff on DWP →	0	0	0	0	0	0

Source: Tariff Schedules of individual countries

Note: In 2023, these countries supplied 99.8% of India's imports of VSF, and 93.4% of India's imports of viscose yarn.

2.4 (c) A Close Look at Imports of Downstream Products and the issue of Inverted Tariffs

The Indian viscose industry is operating under difficult international conditions. Two dominant producers/exporters, China and Indonesia have excess capacity, and can supply VSF products at low prices. In fact, the impact of the imports from these two nations is magnified because other countries such as Singapore and Hong Kong (China) export to India after purchasing their exported product from China (by Hong Kong) and Indonesia (by Singapore).[17]

Viscose Staple Fibre (VSF): Table 2.7 below shows the main countries from which India imports VSF. In 2023, imports from these countries accounted for over 99% of the core VSF imports. Among these imports, duty free or zero tariff imports come in from Indonesia, Thailand and Singapore because of India's FTAs with ASEAN. In 2023, over 80% of the imports of Core VSF entered India duty-free (see Table 2.7).[18] **This results in a situation of inverted tariffs for VSF.**[19]

Table 2.7. Shares of Top Sources of India's Core VSF Imports, 2018 to 2022

	2018	2019	2020	2021	2022	2023
Indonesia	81.7%	72.3%	65.6%	52.8%	64.6%	68.1%
Thailand	3%	7.2%	18.8%	42.6%	31.5%	13.5%
Austria	0.6%	2.2%	1.0%	0.3%	0.3%	11.3%
China	13.5%	18.0%	9.3%	3.1%	2.5%	4.1%
Singapore	0.0%	0.0%	0.0%	0.0%	0.0%	1.7%
UK	0.0%	0.2%	0.2%	0.3%	0.1%	0.3%
Total Shares of:						
Duty Free Core VSF Imports by India	84.7%	79.5%	84.4%	95.4%	96.1%	83.3%
Low Priced Imports	13.5%	18.0%	9.3%	3.1%	2.5%	4.1%
Total of Two Above	98.2%	97.5%	93.7%	98.5%	98.6%	87.4%

Source: ITC Trade Map

Notes: (1) "Duty-Free Indian VSF Imports" = imports from Indonesia, Singapore and Thailand.

(2) "Low Priced VSF Imports" = imports from China.

[17] Data shows that 99.99% to 100% of the imports of VSF by Singapore during 2020 to 2022 were from Indonesia; and, 97.7% to 100% of Hong Kong, China's imports of VSF were from China during 2017 to 2022.

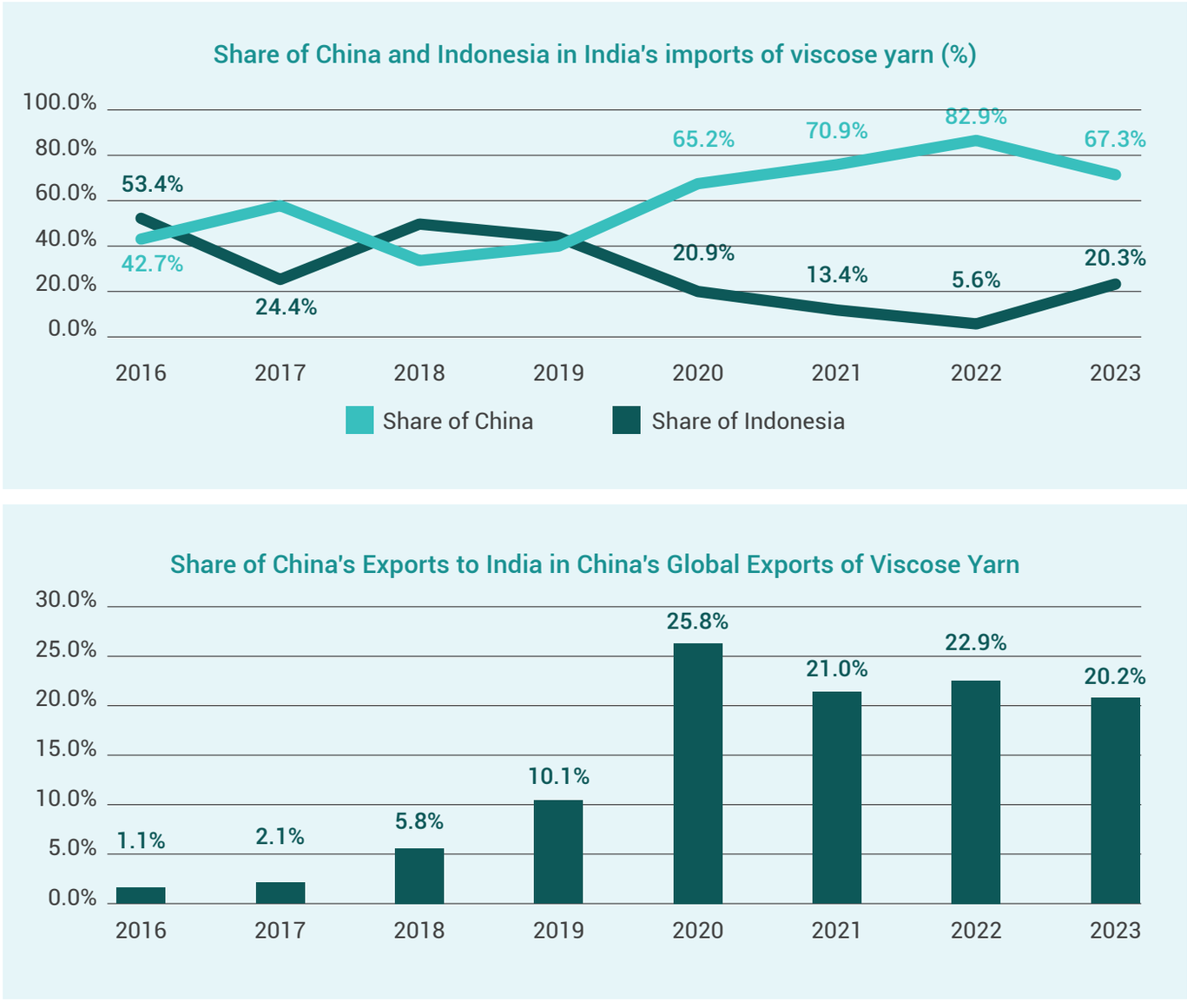
[18] For all of VSF (HS 550410), India's duty-free imports accounted for 53% (2022), and 26.5% (2023). Imports in 2023 are relatively low as they are impacted by the QCO applied to imports. While imports from Austria were able to get the certificate to meet the QCO condition, other exporters were still in the process.

[19] A substantial portion of exports from ASEAN countries are from Chinese firms located there. These firms can price their products very low as a matter of strategy.

2.5. The Emerging Difficult Situation for Viscose Yarn (VY)

China is the largest exporter of viscose yarn in the world. The market share of China in India's imports jumped, with almost one fifth to one quarter of China's global exports of Viscose Yarn being sold to India (Figure 2.3).

Figure 2.3. China Has Emerged as a Major Source of VY Imports, and the Share of India in China's Global Exports of Viscose Yarn



Source: ITC Trade Map

Figure 2.1 has shown that India's imports of viscose yarn increased very rapidly during 2016 to 2023. In this period, India's imports from China increased by 30.3 times, and China's share in Indian imports of Viscose Staple Yarn increased from 42.7% in 2016 to 67.3% by 2023. This sharp rise in China's import share indicates the major initiative of China to outcompete others, including through low prices.

In 2023, India imported 20.3% of its Viscose yarn from Indonesia.

Table 2.8 below shows the shares of India's imports of Viscose Yarn from major sources. For Viscose yarn, duty-free imports come from Nepal and Japan, not the others.[20] Here, unlike VSF, the share of duty-free imports is relatively low. However, the share of "low-priced" imports is large, being over two-thirds in 2023.

A point worth keeping in mind is that VSF is a key input for Viscose yarn, and the inverted tariff for VSF has a knock-on effect for Viscose Yarn as well.

Similar to the situation for VSF, the exports from Singapore to India are also re-exports of Indonesia's

2.8. Shares of Top Sources of India's Imports of Viscose Staple Yarn, 2018 to 2023

	2018	2019	2020	2021	2022	2023
China	33.3%	38.2%	65.2%	70.9%	82.9%	67.3%
Indonesia	50.2%	43.0%	20.9%	13.4%	5.6%	20.3%
Nepal	5.0%	5.5%	4.2%	6.3%	5.2%	5.7%
Singapore	1.8%	2.6%	4.8%	7.1%	5.3%	4.4%
Vietnam	8.1%	8.1%	2.5%	0.8%	0.0%	1.4%
Hong Kong, China	0.4%	0.1%	0.8%	0.9%	0.5%	0.7%
Japan	0.1%	1.1%	0.2%	0.0%	0.1%	0.1%
Total Shares of:						
Duty-Free Indian VSF Yarn Imports	5.1%	6.7%	4.5%	6.3%	5.3%	5.8%
Low Priced VSF Yarn Imports	33.7%	38.3%	65.9%	71.8%	83.4%	67.9%
Total of the two categories above	38.8%	44.9%	70.4%	78.1%	88.7%	73.7%

Source: ITC Trade Map

[20] Imports of Viscose yarn from Indonesia of HS 55102010, 55102020 and 55102090 are allowed in duty-free. However, India's imports are very small under these HS categories.

[21] 99.9% of the total imports of Singapore of Viscose Staple Yarn were imported from Indonesia.

2.6. Conclusions

The situation faced by Indian viscose industry today is a serious one. It is strongly subject to inverted tariffs on its imported inputs for viscose products, particularly DWP. In 2023, 83.3% of Core VSF imports entered India duty-free. Thus, for VSF the domestic producers faced inverted tariffs for over four-fifths of the imports.

These inverted tariffs lead to loss of market for the domestic industry for two reasons. One, the higher costs on account of tariffs on bulk of the inputs. Two, the zero tariffs on Core VSF for a large portion of India's imports of the product.

Therefore, even in a situation where the domestic demand is growing rapidly, investment by domestic industry is low. As a result, much of the growing demand in India will be met by imports. This results in reduced domestic participation (low Atma Nirbharta) of India in the viscose value chain.

The high growth rate of India's domestic market has attracted the attention of China and Indonesia, particularly China, towards the Indian market. India's imports of viscose yarn from China have shot up immensely. In 2023, these imports were 30.3 times the level on Indian imports from China in 2016. **This is a situation which requires specific attention so that India's import dependence for viscose yarn does not create uncertainty and over-reliance on a single source in the value chain for the country.**

One of the policy responses in this situation is to remove the inverted tariffs on inputs, which will increase revenues and market share of Indian industry, and also promote the conditions that encourage more investment by the domestic industry.

The policy of removing inverted tariffs is also in line with the statement by the Honourable Finance Minister in this year Budget speech, that:

> "In Budget 2022-23, we reduced the number of customs duty rates. I propose to undertake a comprehensive review of the rate structure over the next six months to rationalise and simplfy it for ease of trade, removal of duty inversion and reduction of disputes."[22] (emphasis added)

[22] *Paragraph 117 of https://www.indiabudget.gov.in/doc/budget_speech.pdf*

Chapter 3

Cost Effects of tariffs on inputs on VSF and Downstream Products

Introduction

The last chapter showed how and why the competitiveness effects of tariffs were magnified in a global market scenario where China and Indonesia had overcapacity and India has one of the largest and fastest growing market for VSF. It also demonstrated how removing tariffs on key inputs such as DWP would make the Indian industry competitive and encourage investment in the VSF sector. This chapter will estimate the cost effects of tariffs on inputs of VSF. It will also try to estimate the impact on downstream products of tariffs on inputs to VSF.

3.1 Cost effects on VSF of input tariffs

A simple way of estimating the cost effect of tariffs on VSF is to multiply the share of cost of an input by its tariff and aggregate these effects.

Impact on costs = Share of input in total cost multiplied by tariff on specified input. These costs are aggregated over all inputs.

An important result of import tariff is that the price of the locally produced input also rises close to that of the imported input. Further, in the case of DWP, virtually the entire amount consumed in India is imported.

An important aspect of tariffs is that the applicable tariffs on a product from a specific country depends upon whether or not India has an FTA with the country. Therefore, for every product, the imports from each country and the relevant tariff (MFN or preferential) need to be taken into account. Based on the import shares and relevant tariffs, a weighted average import tariff is calculated for each input (see Table 3.1 below).

Table 3.1: Weighted Average Tariff on Main Inputs for VSF Due to Import Duty on Inputs

Input	MFN Tariff India	Weighted Average Tariff, 2023	Share in Variable Cost	Rise in Cost due to Tariff
DWP	2.5% + 10% cess	2.75%	66%	1.815%
Caustic Soda	7.5% + 10% cess	4%	13%	0.52%
Sulphur	2.5% + 10% cess	1.3%	2%	0.03%
Finishes	10% + 10% cess	6.6%	1%	0.06%
Total of Above			82%	2.43%

Source: ITC trade map

The rise in cost of about 2.5% may appear small, but in a context where profit rates are low for the VSF industry, with PBIT margin of 1.2% and RoCE of 2.4%,[23] this increase can drive the industry to unsustainability. Further, Table 3.1 does not include inputs which account for 18% of the variable costs, and since these inputs also are subject to imports tariffs, the overall impact on costs would be more than 2.4%.[24]

[23] See Table 4.3 in next Chapter.

[24] For example, these inputs are "natural gas" and "Finishes", with respective tariffs of 2.5% plus 10% cess, and 10% plus 10% cess.

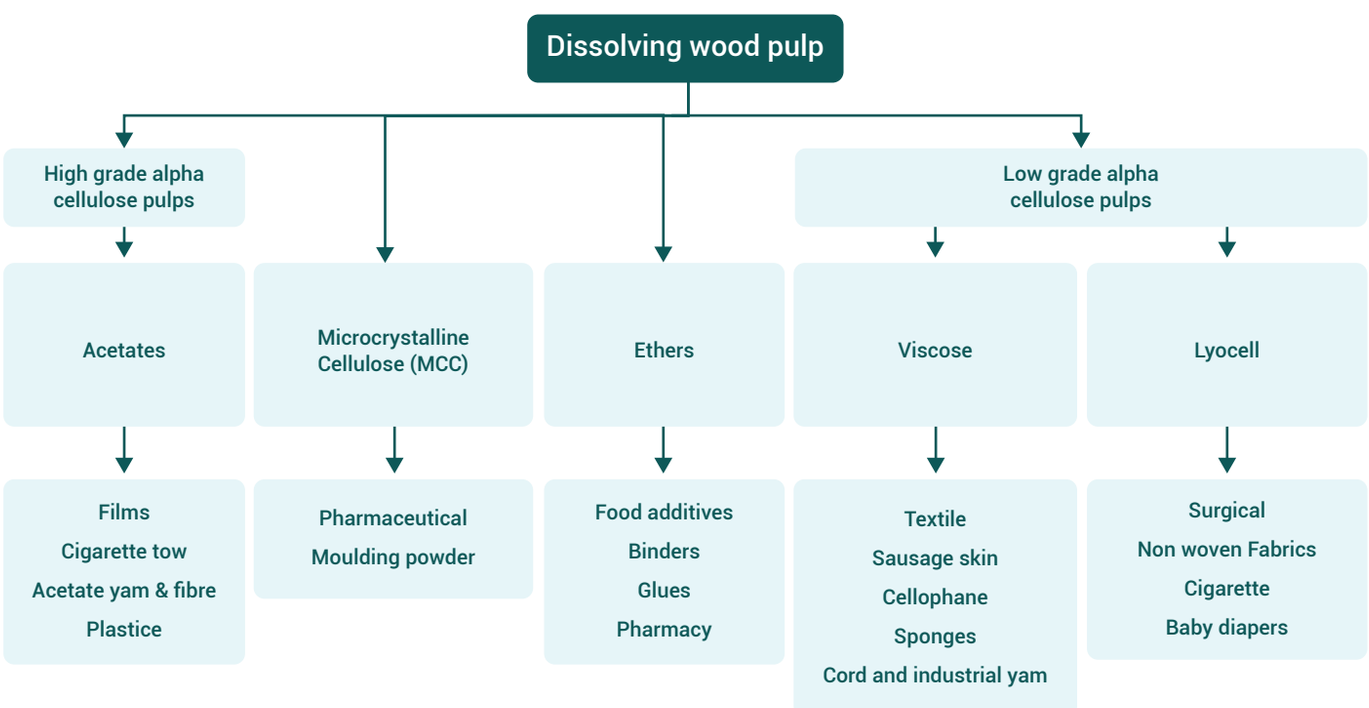
The key point in this situation is that where other comparator countries have lower tariffs and hence lower cost that India, investment in Indian industry will be stymied due to higher costs of production on account of the tariffs. Therefore, tariffs on inputs alone are enough to stall the industry growth and over time reduce the footprint of the Indian industry in the VSF market. Further where there is global excess capacity, especially in Indonesia and China, the floor prices of VSF and VSF yarn are difficult to estimate. With low profits, the firms begin to focus on recovering their variable cost. Only when the profitability rises toward normal levels, does the firm consider the issue of additional investment to raise capacity. Due to tariffs, India's cost in comparison to its nearest competitors China and Indonesia is at more than 2% higher on account of tariffs alone. In terms of domestic policy reversal, removing tariffs on inputs especially DWP becomes essential in restoring this industry.

3.2 Effects on the Downstream Industry: Rise in Costs

A rise in costs due to tariffs on the inputs at the first stage of production in the supply chain, i.e. production of VSF which is an input into the downstream products (VSY, fabric and apparel), negatively affects costs and profitability for each stage of the supply chain.

Among these inputs, DWP is both essential and a large proportion of variable cost. Figure 3.1 shows the various uses of DWP. As explained in Chapter 1, the most important uses are in the textile and apparel industry in terms of value, and the focus here is on these two products.

Fig 3.1 Uses of Dissolving Wood Pulp



Source: https://www.researchgate.net/figure/Flowchart-showing-the-various-applications-of-DWP-derived-products-and-their-current-or_fig1_359219096

3.2 (a) Inverted Tariffs go against Important National Objectives

Inverted tariffs arise in a supply chain where there are tariffs on inputs in the first stage, and in the subsequent stages the tariffs on products produced have zero or lower tariffs imposed on them. A situation of inverted tariffs creates a double-jeopardy! This is the case for the viscose sector. Tariffs on the basic inputs raise the cost of production of VSF, and tariffs on imports of VSF from important sources such as Indonesia, Singapore and Thailand enter India at zero tariffs under Indo-ASEAN FTA. Therefore, zero tariff is imposed on imports of VSF into India from the largest, third and fourth-largest exporters of VSF in the world.

Tariffs on inputs at the basic stage of production increase the cost of production, and inverted tariffs (i.e. zero tariffs) on VSF reduce the market base and thus the potential revenue that can be earned in the downstream market.

The solution to the non-level playing field created for the Indian industry by Indian policy is to remove tariffs on inputs. The FTA tariffs cannot be raised without negotiations, which will involve some form of compensation to be provided to the FTA countries.

Import tariffs are imposed in India for two important reasons. One for revenue purposes, and another growth of the output and employment from the domestic industry to enable stronger establishment of the domestic industry in the supply chain.[25]

An inverted tariff situation focuses on these two objectives only in the stage of the supply chain for which the tariff is imposed, i.e., in this case the sectors which produce the main inputs (DWP, Caustic Soda etc). **It raises costs for the downstream sectors of the supply chain and reduces the potential domestic production and exports of the products in those sectors,** namely for VSF, Viscose yarn, fabric and apparel. All these sectors lose out due to positive import tariffs on inputs.

This adverse effect is strengthened because the major competitors of India for these downstream products do not have tariffs on their major inputs in the first stage of the supply chain (see Table 3.1 in the previous Chapter).

Furthermore, almost all of the main input, DWP, is obtained from imports because India is a very small producer of the product. Therefore, there is minimal, if any, impact of tariff on domestic production of DWP. The effect of the tariff is mainly to increase costs, which then reduce the competitiveness of Indian industry for each of the downstream products of the supply chain.

Another key consideration is that the demand for inputs depends on the possibility of sales of the product to be produced, i.e., in this case VSF. The higher cost of production reduces competitiveness and ability to sell a larger volume of the domestically produced VSF. Therefore, to the extent that the objective of the tariffs on inputs is to increase domestic output, the inverted tariff has the opposite effect. The inverted tariff situation for VSF frustrates the objectives of increasing domestic production and employment for products at all stages of the supply chain.

[25] See the statement by the Indian Finance Minister in paragraph 60 of the Budget Speech for 2018-19. It states: "In this budget, I am making a calibrated departure from the underlying policy in the last two decades, wherein the trend largely was to reduce the customs duty. There is substantial potential for domestic value addition in certain sectors, like food processing, electronics, auto components, footwear and furniture. To further incentivise the domestic value addition and Make in India in some such sectors, I propose to increase customs duty on certain items." From https://www.indiabudget.gov.in-/budget2018-2019/ub2018-19/bs/bs.pdf

All these adverse effects are generated for a revenue earning of about INR 200 crores (see Table 4.2 of the next Chapter). In policy terms, it is a poor choice to give primary emphasis on revenues from import tariff at the cost of domestic industry's production and employment both at present and for the future (due to lower investment). This policy is effectively frustrating two of the key objectives emphasised by the Honourable Prime Minister in his speech of 6th August 2021 to the Heads of Indian Missions abroad.[26] These objectives are to achieve a major increase in exports and have a manifold increase in the participation of domestic industry in global supply chains. These tariffs on inputs frustrate both the objectives due to raise costs and reducing competitiveness.

3.2(b) Inverted Tariffs on Inputs Raise Costs and Reduce Competitiveness for Each Downstream Product

The inverted duty structure reduces the effective protection offered to downstream products through tariffs, and also raises the costs of production in comparison to major competitors of India. Hence it becomes even more important to eliminate tariffs on inputs of VSF, because VSF constitutes a substantial share of downstream products as shown in Table 3.2. Garment cost is in the range of 0.6 – 0.7%

Table 3.2: Tariff Effects on VSF and Downstream Products

	VSF	Yarn Cost	Fabric Cost	Garment Cost
Fibre Cost Share	100%	70-80%	50-60%	25-30%
Cost effects of VSF input tariffs	2.4%	1.7 -1.9%	1.2 -1.4%	0.6 - 0.7%

Source: AMFII

The tariff on inputs has an impact on each of the downstream sectors. The tariff effects on the cost of downstream products cumulates to 5.9% - 6.5%. In each part of the value chain the effects of tariffs on inputs of VSF increases cost of production. The further downstream the product, the lower the effect, but in no part of the value chain is it zero.

This results in a loss of market share for each of the product categories, i.e., VSF, VSY, Fabric and Garment. In a highly competitive market, the tariff impact results in a considerable loss for the industry's business opportunities. The policy solutions to the situation include two important steps. One is to reduce the tariffs on main inputs to zero (like in the economies competing with India), and pay special attention to the situation in the viscose yarn market where the export focus by China is resulting in India's import dependence, a situation approaching API import dependence on China.

Conclusion

Tariffs add to the cost of production. In a market where margins are small and there is overcapacity, variable costs become the basis for comparison with comparator countries. In most cases, the effective tariff is 0 in comparator countries. This difference in tariffs results in a variable cost increase of about 2% for VSF, and in each part of the downstream value chain around 1% totalling 6%. This distortion in costs due to tariffs especially in comparison to comparator countries needs to be corrected. Hence there is a strong case for reducing tariffs of inputs of VSF to improve competitiveness and investment in the Indian industry.

[26] *https://www.pmindia.gov.in/en/news_updates/pms-address-at-interaction-with-heads-of-indian-missions-abroad-and-stakeholders-of-the-trade-commerce-sector/*

Chapter 4

Removing Inverted Tariffs to Improve Competitiveness and Raising Investment

Introduction

This Chapter takes forward some of the key points made in the first two Chapters. An important point made there was the dominant position of China and Indonesia in the global export market for VSF and viscose yarn. Both these nations have major excess capacity, and are focusing on the growing Indian market for their exports of VSF and VSY. This Chapter makes two important points.

(a) With the low profitability created by inverted tariffs, the Indian industry is not investing much in the VSF sector. This is happening despite a large increase in Indian domestic demand for viscose products. The consequent unsatisfied demand is leading to a rise in imports, and the focus of China on India is leading to a rising dependence of India on imports of viscose yarn from China. This is reminiscent of the high import dependence of India on China for API becoming a cause of concern. The high import dependence of India on China for viscose yarn also needs to be kept in mind for policy purposes.

(b) The Chapter also calculates the amount of additional cost imposed on domestic producers of VSF by the policy of imposing tariffs on inputs, as shown in Chapter 2. This Chapter then calculates the additional revenue and net profit in the hands of the domestic producers if these tariffs on inputs are removed. This will promote the possibility of higher domestic investment (Atma Nirbharta) in the sector, a very important development because in FY 23, the industry faced very low profit rates.

The removal of tariffs will lead to another source of revenue (not estimated in the Chapter). The lower cost of production for the domestic industry will lead to additional sales of VSF for the domestic industry. That will further improve the situation for raising investment by the domestic industry.

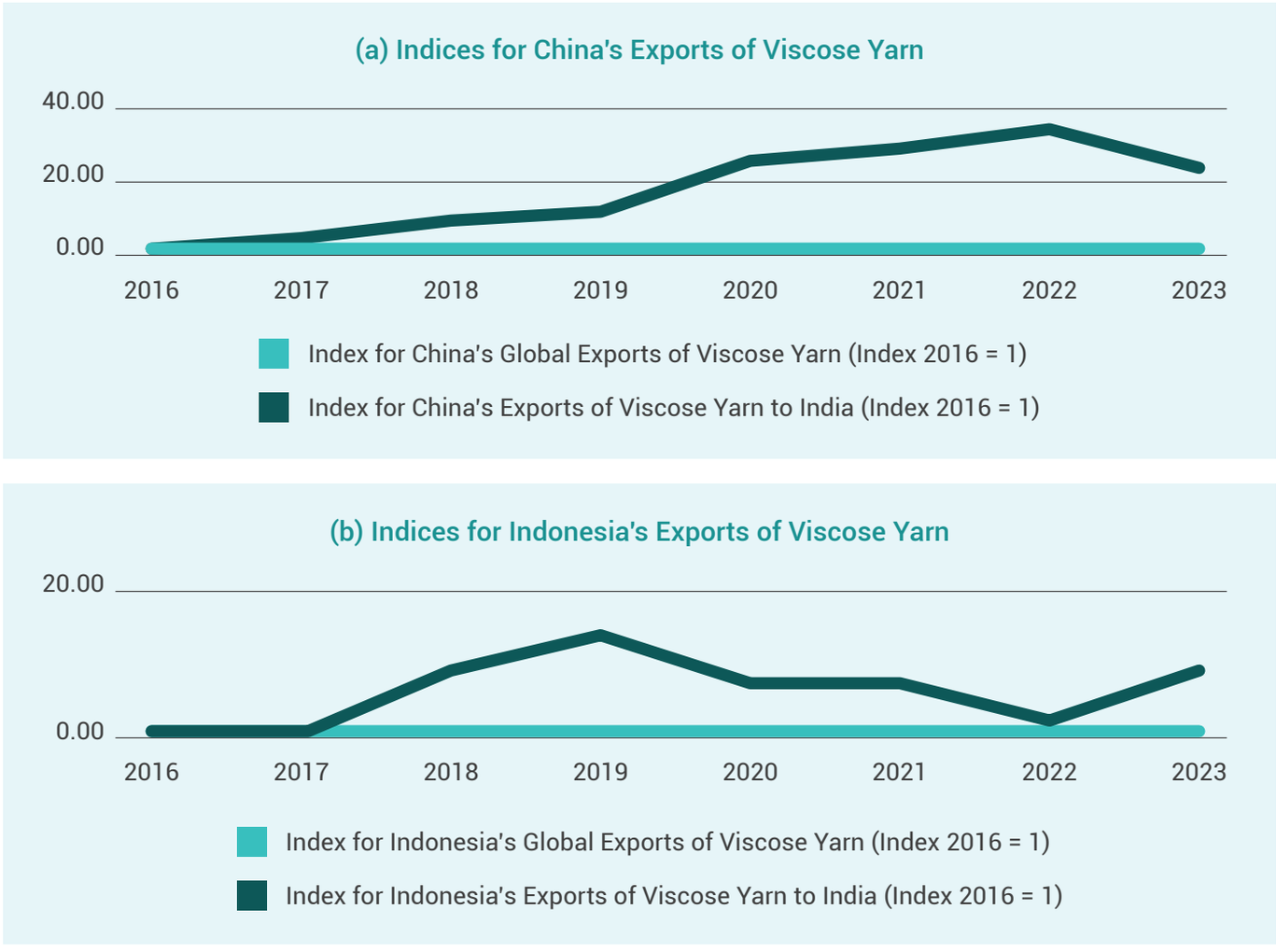
Section 4.1 discusses the high import dependence of India on China and Indonesia, and Section 4.2 examines the impact of removing tariffs on inputs and how that would provide a basis for improving revenues and profits of the domestic industry, creating a stronger basis for an increase in domestic investment. This gives an important reason to address the issue of inverted tariffs.

4.1. Import dependence of India on the two major exporters of VSF and viscose yarn

The high growth of the Indian market for viscose products has led to the major exporters, particularly China, to focus on India. The high growth has led to an increase in Indian imports of VSF and viscose yarn, discussed in Chapter 2 earlier. China has increased its share in Indian imports to a very high level. China's exports of Viscose Yarn to India started increasing since 2018, and picked up strongly from the COVID-19 year, i.e., 2020. This reflects, inter alia, that a major change has occurred in China's approach towards the Indian yarn market.

Figure 4.1 below shows the relative growth of Viscose yarn exports by China and Indonesia to the world and to India. China's global exports of Viscose yarn have increased 1.42 times. In comparison, China's exports of viscose yarn to India in 2023 were over 25 times the corresponding export level in 2016 (Figure 4.1 (a) below). It is interesting to note that Indonesia's exports of Viscose yarn to the world declined over the period 2016 to 2023. In 2023 they were about half the level of Indonesia's global exports in 2016. In contrast, in 2023, Indonesia's exports to India were over 9 times the level in 2016 (Figure 4.1

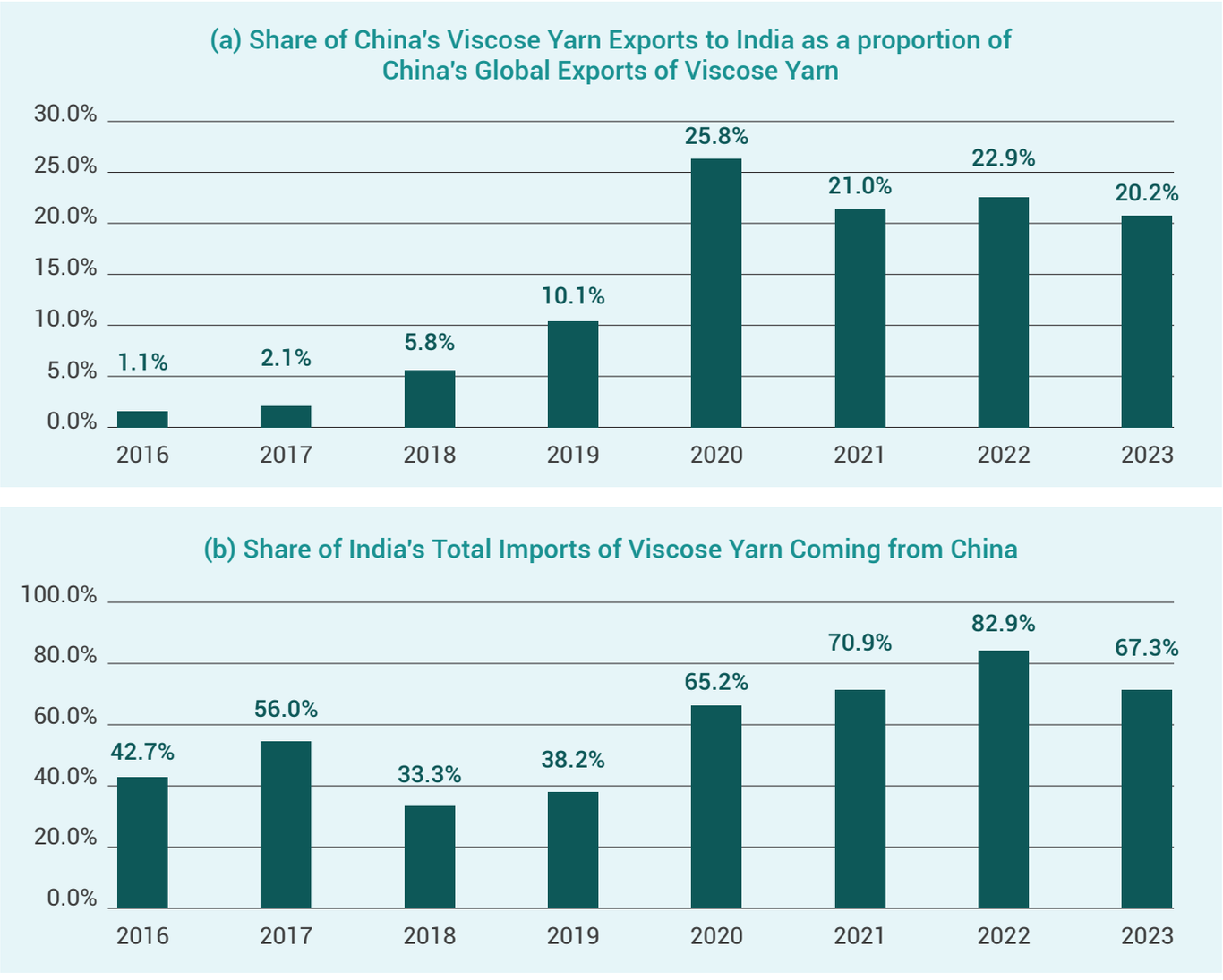
Figure 4.1. Relative Growth of China and Indonesia's Export of Viscose Yarn to India



Source: ITC Trade Map

One-fourth to one-fifth of China's global exports of Viscose yarn is sold to India: China is the largest exporter of viscose yarn. Over 25% of China's global exports of Viscose yarn were sold to India in 2020, and since then between about one-fourth to one-fifth of China's global exports of Viscose yarn are sold to India (see Figure 4.2(a) below).

Figure 4.2. China's Major Focus on the Indian Market for Viscose Yarn Exports



Source: ITC Trade Map

India's high dependence on imports from China: India's import requirement has increased very significantly compared to middle of the previous decade, and China has begun considering India as a special export target for Viscose yarn. India's dependence on imports from China shot up from about 33% in 2018 to 67% in 2023 (Figure 4.2 (b)).

Indonesia: In 2023, Indonesia's share in India's imports of viscose yarn was considerably down, but it was still more than 20%. However, Indonesia is a dominant supplier of VSF to India. In 2023, Indonesia was the source for 68% of India's VSF imports.

4.2 Cost Increase Due to Tariffs on Imports of Inputs, and Impact of Removing These Tariffs

This section first estimates the cost increase due to tariffs on imports. This cost is about INR 206 crore. This is then considered in the context of the very low profitability of the industry in 2023, and estimates the rise in profits if the costs due to tariffs on inputs were not there. As discussed below, the rise in profits so estimated gives an underestimate because the industry is losing in three different ways. Therefore, the actual profitability will be higher by an amount that would be shown by the additional market gain by the domestic industry if tariffs on inputs are removed.

4.2 (a) High Costs Arising Due to Tariffs on Inputs

Unlike India's competing economies, inputs imported into India face tariffs, which lead to higher costs of producing Viscose products, starting from VSF and VSY. Table 4.1 below shows the estimates of the tariffs paid for India's imported inputs for viscose.

This increase in cost due to the inverted tariffs results in lower revenues for the abovementioned three reasons.

One is the additional expenses on imported inputs, and

Second is the loss of market sales due to the higher cost of production as a result of tariffs on inputs.

Third, the reduction in profits disincentivises new investment for producing VSF.

Table 4.1 shows only the first of these three costs; the issue of investment is discussed in the next three sections. Table 4.1 considers the estimated weighted average tariff on the imports of major inputs for the year 2023.[27] This shows that the additional cost incurred due to tariffs on the inputs in 2023 was about INR 206 crores. This is the first type of net revenue loss on account of tariffs on inputs. The others relate to loss of sales of VSF on account of higher costs of domestic production, and reduction in new invest-

Table 4.1. Impact of Weighted Average Tariff on Cost of Main Inputs for VSF

Input	MFN Tariff India	Weighted Average Tariff, 2023	Imports in 2023 (USD Mn)	Tariff Impact (INR Crore)
DWP	2.5% + 10% cess	2.75%	777.814	179.51
Caustic Soda	7.5% + 10% cess	4%	78.406	26.35
Sulphur	2.5% + 10% cess	1.3%	3.125	0.336
Total of Above			859.345	206.196

Source: Industry Association and estimates by the authors

Note: Dissolving Wood Grade Pulp (DGWP) is used for variety of applications including the Viscose Staple Fibre sector & Viscose Filament Yarn which produces versatile fibres and filament yarns for textiles and the pharmaceutical industry, which relies on Dissolving Wood Grade Pulp (DGWP) for manufacturing powdered cellulose. More than 95% of the imports used in making of Viscose Staple Fibre & Viscose Filament Yarn products

There is one important caveat in the estimates shown by Table 4.1 above. While DWP imports are for VSF production, the imports of other inputs are not necessarily meant for VSF. Therefore, the revenue increases for the domestic industry would be between INR 180 crore and INR 206 crore. **For simplifying the analysis, INR 206 crore is used as a basis of calculation of the impact, while bearing in mind that the actual estimate would be more than INR 180 crore and up to INR 206 crore.**

It is noteworthy that this additional revenue is more than the value of VSF imports by India.

[27] *This is estimated based on a consideration of import share of a country from which imports take place, and the tariff levied on these imports.*

4.2 (b) Industry's revenue and profit impact of removing tariffs levied on inputs

For several years, the industry had reasonably good returns (Table 4.2 below). This was a period with an anti-dumping measure in place. In the financial year 2023, the anti-dumping measure had been withdrawn and the profit rate plummeted.

Contingent protection measures such as anti-dumping duty are not long-term policy instruments. For encouraging sustained competitiveness and investment, long-term policy correction is required. Removing inverted tariff on inputs is a primary example of such a policy correction with long-term impact.

Table 4.1 shows that with zero tariffs on main inputs, there would be an additional revenue of INR 206 crore because of not paying tariffs on inputs (i.e., with removal of inverted tariffs). This tariff reduction will reduce the costs of production for the Indian domestic industry, which in turn will result in an increase in sales by the domestic industry.

The industry would get additional revenue from three sources. One, the revenue on account of reduction of tariffs on inputs of VSF (INR 206 crore in calculation above). Two, the revenue generated from additional sales in the market (both domestic market and exports). Three, the returns from new investment as the profit rate rises. Therefore, the increase in net profit would be more than INR 206 crore.

With the additional revenues, there would be an increase in the Return on Capital Employed (RoCE) of about 3.2%. Adding INR 206 crore to get the new RoCE in 2023 (Table 4.2 below), this would imply an aggregate RoCE of more than 5.6% for the domestic industry if inverted tariffs were to be removed. Consequently, with removal of tariffs on inputs, an otherwise commercially unsustainable ongoing project would begin to be more attractive and sustainable.

Table 4.2. Major Fall in Profits of Industry in FY 2023 Due to Import Pressure and Inverted Duty on Inputs

1	2	3	4
	Average for Last 5 Years (FY 18 -	FY 2023: Industry Perfor-	FY 2023 Performance, If No Tariffs on Inputs (Adding INR 206 crore to Column 3)
PBDIT (INR cr.)	1,332	605	811 + Profit from Additional Sales
PBIT (INR cr.)	1,035	156	362 + Profit from Additional Sales
PBDIT margin	16.7%	4.7%	6.3% + Profit from Additional Sales
PBIT margin	13.0%	1.2%	2.8% + Profit from Additional Sales
RoCE	18%	2.4%	5.6% + Profit from Additional Sales

Source: Industry Association and author's calculations

Notes: (1) This estimate would actually be higher because these numbers do not include the profits from additional market gained by domestic industry due to reduction in costs. (2) At the same time, the actual revenue gain for industry would be between INR 180 crore and INR 206 crore. Taking the estimate of INR 180 crore as additional revenue, the margins are as follows: 6.1% for PBDIT margin; 2.6% for PBIT margin; and 5.2% for RoCE.

The increase in the industry's revenue will raise its profits by an equivalent amount, i.e., by INR 180 crore to INR 206 crores. From this, 25% will be paid as corporate income tax (i.e., INR 45 crore to 51.5 crores) to the Government.

4.2 (c) The Increase in Domestic Industry's production and sales of VSF

With a removal of inverted tariffs by removing the tariffs on inputs of VSF, costs would reduce making domestic VSF more competitive. The average cost reduction when bringing tariff of inputs to zero in 2.4%, as shown in Table 3.1 of chapter 3. The corresponding increase in imports of DWP is based on estimates calculated in a paper that has specifically looked at this issue; this paper states that if only the tariff of DWP is reduced the imports of DWP would rise by 1.06%.[28] A tariff reduction on all imported inputs would lead to a larger reduction in costs, i.e., by 1.3388 times that resulting from a reduction only due to DWP tariffs.[29] Therefore, with all input tariffs coming down to zero, the DWP imports (which are derived imports for producing VSF), will rise by 1.4% (i.e., 1.3388 multiplied by 1.06).

DWP is a key input that is linked closely to production of VSF. A 1.4% increase in the 2023 DWP imports would result in a 1.4% increase in VSF production (domestic) as well. Based on the data in Table 1.1, a **1.4% increase in VSF production would give an additional output of about INR 173 crore.**[30]

There is a GST of 18% on VSF. This would give an additional revenue of INR 31.1 crore for the Government (i.e., 18% of 173 crores).

Further, there would be a profit from the additional VSF production. **Considering two options, i.e., one-tenth or one-fifth of this as profit, a 25% tax on that would give revenue of INR 4 crore and INR 2 crore respectively for the two levels of profits considered.**

In a static context, i.e. considering only the current operational conditions and investment levels of the domestic industry:

(a) the revenue loss from reducing tariffs on inputs of VSF is INR 206 crore;[31] and,

(b) revenue gain is 51.5 + 31.1 + 4 = INR 86.6 crore (or INR 84.6 if profit of 5% is taken).[32]

In addition to the above, the rise in revenues of the industry will incentivise investment and that introduces an additional dynamic aspect in the situation.

[28] See Page 8 of the paper by Sumathi Chakravarthy, Sindhu Bharathi M., Divyayudha Khire, Badri Narayanan Gopalakrishnan, undated, "Potential Economic Impact of Fixing the Inverted Customs Duty Structure: The Case of Indian Viscose Fibers".

[29] This is 2.43 divided by 1.815, as shown in Table 3.1.

[30] This is arrived by calculating 1.4% of USD 1,476 million, and then using an exchange rate of USD 1 = INR 83.97 for converting US dollars to INR.

[31] The lower limit of this would be INR 180 crores.

[32] For the lower limit of the revenue gain of INR 180 crore, the corresponding estimate would be 45 + 31.1 + 4 = 80.1 (or 78.1 with 5% profits).

4.3 Domestic Industry is Incentivised to Consider Investment for Additional Production of VSF With Removal of Input Tariffs

Table 4.2 shows that the financial situation for industry improves with the removal of tariffs on inputs. The return of capital employed will rise to more than 5.6%.[33] This would incentivise the industry to raise its investment plans for producing VSF, thus increasing the actual production toward the estimates of "mill demand' shown in Table 1.1 of Chapter 1. Discussions with the industry suggest that an initial investment rise could be about INR 1,200 crores to **INR 1,500 crores.**

Output-Investment ratio for VSF: On average, INR 6 crores is required for producing 1 ton of VSF per day, or 365 tons of VSF in one year. The price of VSF is INR 1.46 lakh per ton. This implies that with an investment of INR 6 crore, VSF with a value of INR 5.329 crore is produced. This implies that the output-investment ratio for VSF is 0.888166667 (i.e., 5.329 divided by 6). Using this ratio, the VSF output resulting from higher investment levels can be estimated.

Impact of new Investment: For investment levels of INR 1,200 crore and INR 1,500 crore, the value of annual VSF output produced would respectively be **INR 1,065.80 crore and INR 1,332.25 crore.** Table 4.3 shows the revenue gains for the Government after removing tariffs on inputs of VSF, and the incentivised investment that takes place after that.

The estimates in Table 4.3 show that the additional revenue generated will more than cover the revenue loss for the Government when tariffs on inputs are removed. The Table shows two different situations: one is when the tariffs of inputs come down to zero, and the other is when additional investment takes place incentivised by the higher revenues with zero tariffs on inputs.

[33] As shown in the notes of Table 4.2, the lower bound of this is more than 5.2%.

Table 4.3. Government's Revenue Gain Resulting from Removing of Tariffs on Inputs of VSF

(A) Revenue Gain for the Government After Tariffs Decrease			
Revenue Range for Industry After Input Tariff Decreasing to Zero		INR 206 crore	INR 180 crore
Corporate Tax (@ 25% of Revenue)		51.5	45
GST on additional VSF production lower costs due to tariff decrease		32.4	32.4
Corporate Tax on additional profits from the Increase in VSF production		4 (for 10% profit)	2 (for 5% profit)
Total of above		87.9 (for 10% profit)	79.4 (for 5% profit)
Note: If 5% profit is considered, then the total corporate tax amount is INR 2 crores lower.			
(B) Revenue Gain for the Government With New Investment to Produce VSF			
Investment Level (Leading to Additional VSF production)		Net Revenue for Government (INR crore)	
INR 1200 crore	GST on VSF*	169.4	
	Corporate Tax	24.2 (for 10% profit)	12.69 (for 5% profit)
	Total	193.6	182.1
INR 1500 crore	GST on VSF*	211.84	
	Corporate Tax	30.28 (for 10% profit)	15.86 (for 5% profit)
	Total	242.1	227.7

Grand Total Revenue for Government		
	INR 206 crore and 10% Profits	INR 180 crore and 5% Profits
	Grand Total	Grand Total
For Investment of INR 1200 crore	281.5	261.5
For Investment of INR 1500 crore	330	307.1

*Note: * = The GST revenue on VSF is calculated after deducting the tariff revenue loss on inputs.*

For the first situation, the additional revenues for the Government ranges from INR 79.4 crores to INR 87.9 crores.

For the second situation with higher investment incentivised by lower tariffs on inputs, two different levels

of investment are considered, i.e. INR 1,200 crore and INR 1,500 crore. With an additional investment level of INR 1,200 crore, the revenue gain for the Government ranges between INR 182 crore and INR 193.6 crore. For an additional investment of INR 1,500 crore, the additional revenue for the Government would be INR 227.7 crore and INR 242.1 crore.

Considering both these together shows an overall revenue gain ranging between INR 261 crore to INR 281 crore (with investment of INR 1,200 crore), and INR 307 crore and INR 330 crore of the higher investment of INR 1,500 crore.

In comparison, the removal of tariffs on inputs results in a revenue loss ranging between INR 180 crore to INR 206 crore.

The revenue gain to the Government will be higher than the loss of tariff revenue, on account of incentivising greater competitiveness and investment, as costs decrease and revenues for the industry increase with zero tariffs on inputs.

This would also increase the presence of the domestic industry in the market (increasing Atma Nirbharta), and raise domestic employment levels.

4.5 Conclusion

This Chapter has discussed two important points for policy purposes. One relates to the growing focus of China and Indonesia, in particular China, on the Indian market, because of the high growth of Indian demand for viscose products. In this situation, investment by the domestic industry becomes subdued and most of the rise in demand will give rise to additional imports.

India is getting import dependent on China in a major way. **China, the dominant global exporter of Viscose yarn, sells 20% to 25% of its total exports of the product to India, and its exports to India have increased in recent years.** In the process, India has become strongly dependent on imports of Viscose yarn from China, with 67% to 80% of its imports of the product coming from China. The developments in the sector are moving towards the kind of import dependency that led to a special concern for the Active Pharmaceutical Ingredients (API) sector.[34] Part of the reason for the lower domestic market share is also the inverted tariff. With respect to Viscose yarn, an adverse situation is created also due to tariffs on inputs, a "disability" in the supply chain that is specific to India in comparison to its main competitors.

In this background, this chapter has estimated the cost reduction (and additional revenues) for the domestic industry if tariffs on inputs are removed. The estimated cost reduction would be up to INR 206 crore.

The reduction in tariffs on inputs of VSF will increase competitiveness of the domestic industry, and raise the profitability of the industry. This in turn would incentivise the domestic industry to make new investments in the prevailing situation where Indian demand for VSF is rising. Discussions with industry suggest that removing inverted tariffs on inputs and improving the operational conditions would **likely bring forth initial investment of about INR 1,200 crore to INR 1,5000 crore** to increase India's operational capacity of the domestic industry.

These developments will lead to some important consequences. The revenues generated through GST and corporate tax will more than cover the revenue loss when tariffs on inputs are reduced and additional investment is incentivised. Further, there will be a larger presence of the domestic industry in the market with rise in Atma Nirbharta, reduction in imports of viscose fibre and yarn, and create a momentum for further investments by the domestic industry together with additional domestic employment.

[34] "Mandaviya said that the 2017 border standoff with China at Doklam triggered India to rethink its self-reliant strategy regarding active pharma components as it was dependent on just one country for the import of 95 per cent of APIs for the formulation industry"

https://economictimes.indiatimes.com/industry/healthcare/biotech/pharmaceuticals/india-has-started-manufacturing-38-apis-in-past-1-5-years-mansukh-mandaviya/articleshow/102446827.cms?from=mdr

Chapter 5

Conclusions and Recommendations

Introduction

In the global fibre basket, VSF consumption in 2023 was approximately 6.5% of all fibres and is expected to grow to above $18bn, growing at a 6% CAGR. In India growth of VSF is pegged at over 10% CAGR, higher than global growth of around 6%.

The Ministry of Textiles Vision 2047, envisages the domestic market sizes to be $250 Bn for the entire textiles and Clothing Sector & exports projected to be of $100 Bn by 2030. According to this projection India should be exporting roughly 6-10 bn USD of VSF and VSF based products. Production of VSF and VSF based products would need to be four times the export level to meet the government's aspirations and domestic demand.

The industry's internal VSF production, exports & Imports projections for 2030 are considerably lower. Hence while the government's vision is that the VSF industry should grow by two and a half times, the industry has a lower projection of a 25% growth over the entire value chain. This implies that VSF demand would be largely met with imports. The industry does not foresee significant investment by 2030, because of the inverted duty structure which does not provide them with a level playing field.

For producing VSF, DWP is a key input accounting for over 60% of the total variable costs. Its production capacity is relatively limited because of unavailability of the requisite wood in India. In the past four years over 90% of India's consumption of DWP has had to be imported. Hence tariffs on a product which is an essential raw material for producing VSF and cannot be produced in India is not only cost distorting but easily correctible through a reversal of tariffs.

This stagnation in export trends of VSF and VSF based fibres over the past 5 years when global demand is growing indicates that India is uncompetitive in the production of VSF. The growing trade imbalance in this sector is also indicative of high costs of production in India. In VSF based garments for example, Indian exports have declined. It is to be noted from the earlier discussions, that garments occupy the largest share of the market for VSF based products and are also the most dynamic segment of this market. Trends over the last five years show a stagnant level of exports of both VSF fibre, yarn and fabric exports.

The top nations which use DWP to produce downstream products such as VSF and Viscose Staple Yarn and export these products to India, have zero MFN tariffs on DWP. These include Austria, China, Hong Kong (China), Indonesia, Singapore and Thailand and the major exporters of the downstream products imported into India. Therefore, in their supply chain, they are more competitive than India on account of zero tariffs on this key input for viscose products.

5.1 Conclusions

The situation faced by Indian industry today is a serious one. It is subject to:

- Inverted tariffs on its imported inputs for VSF products;
- The Indian market demand is increasing faster than in other places, at an annual average growth rate of over 10% per annum;
- This growth is attracting the attention of the major competing exporters, which do not have an inverted tariff situation and are thus more competitive;
- In addition, two of the largest exporting economies, Indonesia and China have immense excess capacity that is seeking global markets and downward pressure on prices of VSF;
- This results in major price pressure in the Indian market where Indian producers' competitiveness is curbed by inverted tariffs;
- Thus, in a growth situation, the Indian industry would ordinarily have invested much more than it can plan at present;

- The policy disadvantage due to inverted tariffs needs to be removed so that the investment of Indian industry can rise more in step with an increase in domestic demand;
- If that does not happen then India will have to increase imports, or alternatively reduce its growth of textiles and apparel.

5.2 The China Factor

Indonesia and China are the two largest exporters of VSF and VSY in the world. China has focused in a big way on exporting to the Indian market, where domestic demand is growing more rapidly than most other major markets. In recent years, of its total exports of VSY to the world, China has exported one-fourth to one-fifth to India. As a result, 67% to 80% of Indian imports of VSY have come from China in recent years.

5.3 Impact of Tariffs on costs

Tariffs add to the cost of production. In a market where margins are small and there is overcapacity, variable costs become the basis for comparison with comparator countries. In most cases, the effective tariff is 0 in comparator countries. This difference in tariffs results in a variable cost increase of 2.4% for VSF, and 0.6 - 1.9% in each part of the downstream value chain.

Table 5.1 Tariff Effects on VSF and Downstream Products

	VSF	Yarn Cost	Fabric Cost	Garment Cost
Fibre Cost Share	100%	70-80%	50-60%	25-30%
Cost effects of VSF input tariffs	2.4%	1.7 - 1.9%	1.2 - 1.4%	0.6 - 0.7%

Source: AMFII

The cumulated cost effects of tariffs is 5.9 - 6.5% across the value chain. Removing tariffs would increase investment, improve competitiveness. The resulting rise in domestic investment will yield an increase in domestic production of VSF, leading to revenue gains through corporate taxes and GST. The revenue gains will be about 25% higher than the revenue losses to the government through tariff reduction. Hence the revenue loss through tariff reduction will be more than made up in the medium term through additional investment and the additional production of VSF.

Recommendations

This distortion in costs due to tariffs especially in comparison to comparator countries needs to be corrected. Hence there is a strong case for reducing tariffs of inputs of VSF to improve competitiveness and investment in the Indian industry. In particular tariffs on DWP should be reduced to 0. This is essential to meet the government's target for textiles and garments and is in keeping with the objective of Atmanirbhar Bharat. It will also restrict excessive dependence on trade defence measures as on China.

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