Working Paper 365

Trade, Trade Agreements and Subsidies: The Case of the Indian Apparel Industry

Arpita Mukherjee
Anusree Paul
Angana Parashar Sarma
Soham Sinha

October 2018

INDIAN COUNCIL FOR RESEARCH ON INTERNATIONAL ECONOMIC RELATIONS

Table of Contents

List of Tables

List of Figures

List of Boxes

List of Abbreviations

AEPC	Apparel Export Promotion Council
ASEAN	Association of South East Asian Nations
BIDA	Bangladesh Investment Development Authority
BRCA	Balassa's Revealed Comparative Advantage
CAGR	Compound Annual Growth Rate
CEPA	Comprehensive Economic Partnership Agreement
DGFT	Directorate General of Foreign Trade
DSB	Dispute Settlement Board
DTA	Domestic Tariff Area
EBA	Everything but Arms
EOU	Exported Oriented Unit
EPCG	Export Promotion Capital Goods
EU	European Union
FOB	Free on Board
FTA	Free Trade Agreement
GDP	Gross Domestic Product
GSP	Generalised Scheme of Preferences
GST	Goods & Services Tax
GVC	Global Value Chain
HS	Harmonised System
ISDS	Integrated Skill Development Scheme
ITI	Industrial Training Institute
JIT	Joint Inspection Team
LDC	Least Developed Country

LPI	Logistics Performance Index
MEIS	Merchandise Exports from India Scheme
MFN	Most Favoured Nation
MSME	Micro, Small and Medium Enterprises
NFE	Net Foreign Exchange
R&D	Research and Development
RCA	Revealed Comparative Advantage
RCEP	Regional Comprehensive Economic Partnership
SCM	Subsidies and Countervailing Measures
SEZ	Special Economic Zone
SME	Small and Medium Enterprises
TUFS	Technology Upgradation Fund Scheme
UAE	United Arab Emirates
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
US	United States
USTR	United States Trade Representative
VAT	Value Added Tax
WITS	World Integrated Trade Solution
WTO	World Trade Organization

Acknowledgement

We express our gratitude to Rajat Kathuria, Director and Chief Executive, ICRIER, for giving us the opportunity to work in this area and for his constant support. We would like to thank the experts and industry bodies for their valuable inputs. We are indebted to our reviewers. We would like to thank the survey participants for taking time off from their busy schedules to contribute to this paper. The paper received valuable comments from a number of experts. We are especially thankful to Dr. Jayant Dasgupta, Former Ambassador of India to the WTO and Former Secretary, Economic Advisory Council to the Prime Minister; Dr. Rupa Chanda, RBI Chair Professor in Economics, Indian Institute of Management (IIMB) and Ms Chandrima Chatterjee, Advisor, Apparel Export Promotion Council (AEPC) for reviewing this paper.

We would also like to thank Tara Nair for copyediting this paper. We would especially like to thank Chhaya Singh for her help in procuring the research materials and Anu Mohandas for fixing the meetings. ICRIER administrative team deserves a special mention for their help in formatting and uploading the paper.

Abstract

India has a large positive trade balance in the apparel sector and is ranked among the top 10 apparel exporting countries. However, of late, its export growth has stagnated and the country is facing competition in key export markets such as the United States and the European Union from other developing countries such as China, Vietnam and Bangladesh. Apparel manufacturers and exporters face two major challenges. First, India's export promotion schemes have been challenged under the World Trade Organization's Agreement on Subsidies and Countervailing Measures and second, India is negotiating mega-regional trade agreements such as the Regional Comprehensive Economic Partnership, with countries such as China and Vietnam, which may lead to a rise in imports without a corresponding an increase in market access for exporters. Given this scenario, this paper presents India's trade in apparel products by sub-sectors and key markets, and analyses its trade competitiveness across different sub-sectors. It examines the impact of trade agreements and receiving country policies on India's apparel exports. It also analyses the issues faced by the apparel industry in India and compares India's position *vis-à-vis* other apparel exporting countries, in terms of factors that can affect export competitiveness and efficiency. It tries to investigate the impact of subsidies prohibited under the World Trade Organization's Agreement on Subsidies and Countervailing Measures on apparel exports from India. Based on this, it makes recommendations on how to design a comprehensive trade policy that will (a) enhance the export competitiveness of this sector (b) be WTO compliant and (c) ensure greater market access for Indian apparel exporters after trade agreements are signed.

Keywords: *apparel, trade agreements, subsidy, WTO, India, competitiveness, exports*

JEL classification: *F10, F13, F15, H29*

Author's email: *arpita@icrier.res.in; anusree.paul@gmail.com; asarma@icrier.res.in; ssinha@icrier.res.in*

Disclaimer: *Opinions and recommendations in the report are exclusively of the author(s) and not of any other individual or institution including ICRIER. This report has been prepared in good faith on the basis of information available at the date of publication. All interactions and transactions with industry sponsors and their representatives have been transparent and conducted in an open, honest and independent manner as enshrined in ICRIER Memorandum of Association. ICRIER does not accept any corporate funding that comes with a mandated research area which is not in line with ICRIER's research agenda. The corporate funding of an ICRIER activity does not, in any way, imply ICRIER's endorsement of the views of the sponsoring organization or its products or policies. ICRIER does not conduct research that is focused on any specific product or service provided by the corporate sponsor.*

Trade, Trade Agreements and Subsidies: The Case of the Indian Apparel Industry

Arpita Mukherjee, Anusree Paul, Angana Parashar Sarma and Soham Sinha

1. Introduction

In the past decade, the global apparel industry and trade have undergone significant changes. Trade liberalisation, technology infusion, development of global value chains (GVCs), changes in demographic profiles across countries, rise in disposable incomes in developing countries and an increase in brand consciousness among consumers are now driving the growth of the global apparel market. As of 2016, the value of the global apparel market stood at US$1.7 trillion, which constituted around 2 per cent of the world gross domestic product (GDP) of US$75.6 trillion. It is expected to reach a value of US$2.6 trillion by 2025 (Wazir Advisors, 2017). The European Union (EU) has the highest market share, accounting for around 24 per cent of the total world apparel market, followed by the United States (US) and China, accounting for a share of 19 per cent and 13 per cent, respectively. Apart from China, developed countries dominate among the key importers of apparel products, while the major apparel exporters are a number of developing and least developed countries (LDCs), including Vietnam, Bangladesh, Turkey and India.[1] Among the LDCs, Cambodia's apparel industry is highly export-oriented and integrated into the global supply chains, with the US and EU accounting for more than 80 per cent of the imports from the country (Rastogi, 2017).

In developing countries such as India and Vietnam, the apparel industry plays a crucial role in economic growth, in revenue generation and in employment creation. For example, in Vietnam, the textile and apparel industry is the largest employer in the manufacturing sector, employing more than 2.5 million workers and contributing around 15 per cent towards the GDP of the economy (Do Quynh Chi, 2016). With the development of GVCs and global sourcing by multinational brands, developing countries are receiving foreign investment and technology in this sector (Staritz and Morris, 2013; Emma, 2018). This sector has also led to women empowerment through the creation of several employment opportunities as well as inclusive growth (Lopez-Acevedo and Robertson, 2016). Due to this, the governments of several developing countries have come up with different fiscal and non-fiscal incentives to support the growth of this industry and to promote exports.

India is one of the fastest growing economies in the world. As per the International Monetary Fund, India's growth rate in 2018 is estimated to be 7.4 per cent, and is expected to increase to 7.8 per cent in 2019, surpassing the growth rate of China (6 per cent in 2018 and 6.4 per cent in 2019).[2] Over the past decade, there has been growth in the country's apparel industry with investments from domestic companies and increased sourcing of global brands from the country. The growth in this sector is also fuelled by the growth of the organised retail market in the country, catering to increased demand from a growing population (Modi and

---

1 Source: World Integrated Trade Solutions (WITS) Database & WTO Statistics

2 Source: http://www.imf.org/external/pubs/ft/weo/2017/update/01/ (accessed on May 16, 2018)

Bhagchandani, 2016; Bhagwat, Kumar and Kashyap, 2018). India has the advantage of a large pool of skilled workforce and a large raw material base (mostly cotton), which provides impetus for the huge production of apparels. It also has a competitive edge with respect to countries such as China when it comes to labour costs (Ministry of Textiles and Technopak, 2018).[3] At an overall level too, India's manufacturing base in the apparel industry is relatively cost-competitive as compared to countries such as China, Vietnam and Cambodia (Wazir Advisors, 2017).

There is no official data on the size and growth of the domestic apparel market in India. A study conducted by a consultancy firm shows that the size of the textile and apparel industry in India was estimated to have been US$85 billion as of 2016, of which the apparel sector constituted a share of approximately 75 per cent (around US$64 billion). The domestic apparel market is projected to grow at a compound annual growth rate (CAGR) of 11 per cent from 2016 to reach US$160 billion by 2025 (Wazir Advisors, 2017).[4] According to another study, the Indian apparel market is expected to reach US$180 billion by 2025 (Axis Direct, 2017). Although estimates of market size and growth projections vary, they do indicate that India is projected to be a large and growing market for apparel.

Studies show that India's apparel industry is highly scattered and unorganised and spans across different clusters consisting of few large firms and many small and mid-sized firms (for example, see Lopez-Acevedo and Robertson, 2016). According to an estimate by the Ministry of Textiles and Technopak (2018), there are around 1,00,000 apparel factories in the country with around 70,000 of them being small and mid-sized firms. These firms provide employment opportunities to around 12.3 million people. Existing studies show that the productivity of the sector is low (Lopez-Acevedo and Robertson, 2016) but exporting units are comparatively more productive than domestic units are (Roy, 2010). Meetings with industry experts reveal that the import intensity of apparel exports is quite low (less than 5 per cent), which is significantly low compared to other manufacturing sectors such as petroleum, electronics and gems and jewellery.[5]

In global apparel trade, India ranks 5th among the top apparel exporters with an export value of US$16.9 billion (2016).[6] Since the phasing out of quotas in 2005 under the World Trade Organization's (WTO) Agreement on Textiles and Clothing, exports of apparel from India have increased from a value of US$8.2 billion in 2005 to US$16.9 billion in 2016.[7] India's apparel imports is low and the country ranked 42nd in 2016 among apparel importing countries. Overall, India has a large positive trade balance in apparel; the EU and the US accounts for around 50 per cent share of the total apparel exports from the country. Recently,

3 Labour Costs: China-US$155-321/month & India-US$137-179/month
4 Also see https://www.livemint.com/Politics/IaeQ6nTrzFzTj0aISb0lBI/Indian-apparel-market-to-nearly-double-by-2025-says-Narendr.html (accessed on September 28, 2018)
5 Source: https://www.businesstoday.in/magazine/the-hub/dry-run/story/279507.html (accessed on October 4, 2018)
6 Source: WITS Database & WTO Statistics
7 Source: WITS Database & WTO Statistics

there has been some decline in exports, which has been a cause for concern for government and the industry. This is discussed in the paper.

Given the importance of the apparel sector, the government provides subsidies, tax exemption and other benefits through various schemes and policies to enhance the sector's growth and competitiveness as well as to promote exports. These initiatives are provided both by the central and state governments. At the centre, subsidies related to export promotion are provided by the Department of Commerce, under the Ministry of Commerce and Industry through the foreign trade and other policies such as the Special Economic Zones (SEZ) policy. Some of the examples include the merchandise exports from India scheme (MEIS), duty drawback scheme, export promotion capital goods (EPCG) scheme, and exported oriented units (EOUs). The Ministry of Textiles provides incentives for the development of infrastructure, upgradation of technology and skill development through various schemes like the technology upgradation fund scheme (TUFS) and integrated skill development scheme (ISDS). The Ministry of Micro, Small and Medium Enterprises (MSME) also provides various schemes related to financial, marketing and training assistance, some of which are applicable to and are used by the apparel industry. A number of state governments such as Gujarat, Maharashtra, Karnataka, Rajasthan, Madhya Pradesh and Andhra Pradesh have come up with policies and schemes catering specifically towards the growth and development of the textile and apparel industry.[8]

Existing studies have also shown that in apparel exports, India has complete value chain capability in manufacturing for natural fibres, but lacks it when it comes to synthetic fibres. Consequently, the apparel industry has low product diversity as compared to other competing nations such as China (Lopez-Acevedo and Robertson, 2016). Studies have highlighted that India produces mainly low value-added apparel products.

With regard to export competitiveness, studies show that India's apparel sector faces intense competition from countries like Vietnam, Turkey and Bangladesh, whose exports enjoy preferential duty rates or other benefits in major apparel import markets. India also faces the possibility of reduced competitiveness in the apparels sector, as it is now required to phase out export contingent subsidies. Earlier this year, the US had made a complaint to the WTO stating that a number of export related schemes provided by India are in violation of WTO's Agreement on Subsidies and Countervailing Measures (SCM). Among these schemes, the MEIS and the EPCG scheme are the most contested.[9] The MEIS scheme was supposed to expire by June 30, 2018, but the scheme was extended due to declining apparel exports. Apparel exporters receive duty credit scrips at the rate of 4 per cent on the total value of free on board (FOB) exports.[10]

8 Source: http://texprocil.org/informationcorner/654e840d40f07d1c6f1d202ce69762c0.pdf (accessed on August 6, 2018)

9 Source: https://www.thehindubusinessline.com/economy/policy/new-delhi-to-seek-8-years-to-phase-out-export-subsidies-at-wto/article23263660.ece (accessed on August 3, 2018)

10 Source: http://dgft.gov.in/Exim/2000/PN/PN18/PN-07(e).pdf (accessed on August 3, 2018)

Although there are a number of studies on the Indian apparel sector, none of them examines the impact of trade agreements along with domestic trade policies such as export subsidies. As India's trade promotion schemes are now being challenged under the WTO's SCM Agreement and the country is negotiating mega-regional trade agreements such as the Regional Comprehensive Economic Partnership (RCEP), it is important for the Indian government to have a holistic approach to trade policymaking that will (a) enhance the export competitiveness of this sector (b) be WTO compliant and (c) ensure greater market access for Indian apparel exporters after trade agreements are signed.

Given this background, the paper analyses India's trade in apparel products, its trade competitiveness and the impact of trade agreements and receiving country policies (such as the Generalised Scheme of Preferences (GSP)) on India's apparel exports. It examines some of the issues faced by the apparel industry in India and compares India's position *vis-à-vis* other apparel exporting countries, in terms of factors that can affect export competitiveness and efficiency. The paper analyses the impact of subsidies prohibited under the WTO's SCM agreement on enhancing apparel exports from India. Since these are likely to be withdrawn soon, it makes policy recommendation on how India can design WTO-smart subsidies and initiate policies that can help enhance exports.

2. Methodology

This paper is based on secondary data and information analysis and a primary survey. The survey is based on 25 one-on-one meetings with academics, sector experts, policy makers and apparel industry representatives. The secondary data has been collected from World Integrated Trade Solution (WITS) and UNCOMTRADE to study trade flows from 2005 to 2017. In both these sources, the data on clothing imports is not reported for a number of years. For example, for 2017, while there is data on exports and imports for India, this data is not available for other key exporting countries like China, Vietnam and Bangladesh. Therefore, for cross-country analysis, data for 2016 has been used.

Further, for measuring trade flows, only the total value of trade has been considered. This is because there is inconsistency in the data when measured in terms of volume. For example, for some products such as ties, bow ties and cravats (HS-6215) and clothing accessories (HS-6217), the data is given in kilograms. However, for other product categories, such as shawls, scarves, mufflers, mantillas, veils and the like (HS-6214) and T-shirts and singlets (HS-6109), data is recorded as number of items.

To understand the competitiveness of the apparel sector, 4-digit HS codes (HS-2012 classification), which gives 34 product lines (See Table 4.2), have been used to show India's competitiveness across different sub-categories.

However, the 4-digit HS codes cannot be used for analysis of tariff lines as importing countries mostly impose tariffs at 6-digit HS codes, which include 218 product lines. A concurrence table of 4-digit HS codes and 6-digit HS codes is presented in Table A.1 in Appendix.

The tariff data for key importing countries/regions is extracted from the following databases:

Table 2.1: Tariff Data Sources of Different Countries/Regions

Country/Region	Tariff Data Source
European Union (EU)[1]	Europa Database
USA[2]	United States International Trade Commission Database
Japan[3]	Japan Customs Database

Source: 1:madb.europa.eu/madb/euTariffs.htm (accessed on July 30, 2018)
2:https://www.usitc.gov/tata/hts/bychapter/index.htm (accessed on July 30, 2018)
3: http://www.customs.go.jp/english/tariff/2018_4/index.htm (accessed on July 30, 2018)

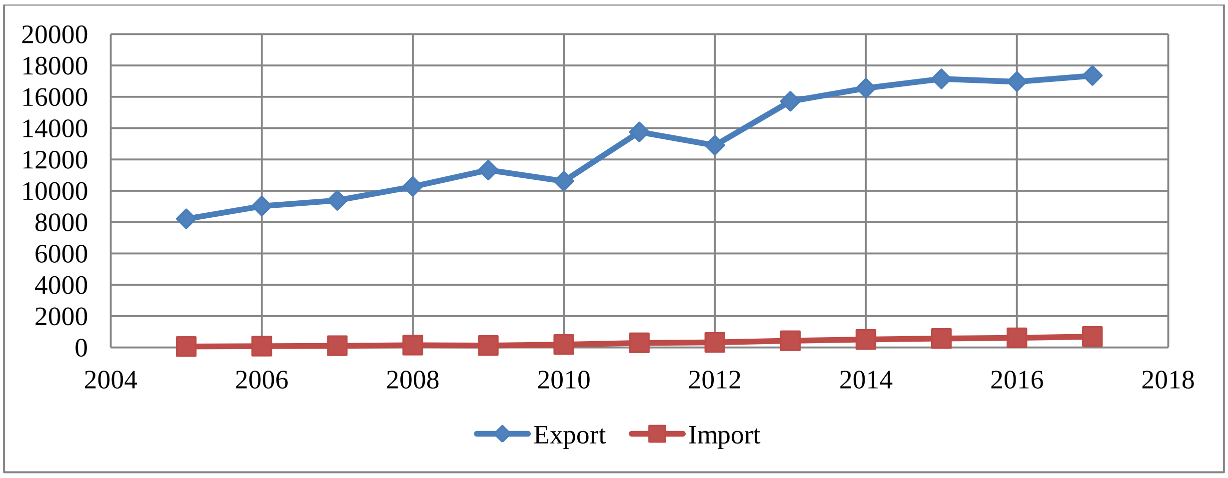
These data sources provide information on (i) the general/MFN (most favoured nation)/autonomous tariffs imposed on imports (ii) the tariff rates enjoyed by imports from countries with a preferential status and (iii) the tariff rates enjoyed by a free trade agreement (FTA) partner nation.

3. India's Apparel Trade and its Global Position

India's export of apparels, which shows a growth rate of 6.8 per cent per annum since 2005, was US$17.1 billion in 2017, (see Figure 3.1). Among top global exporters, India holds the 5th rank with a share of 4.27 per cent. India's apparel imports has increased from US$48.90 million in 2005 to US$688.42 million in 2017, which reveals a growth of 22 per cent during the period. But India's import share in world apparel imports is still only 0.17 per cent (rank 42nd), which indicates that India is a net exporter in the world apparel market (see Figure 3.2). Over time, foreign brand preferences by Indian consumers have affected the growth of the import of apparel products. India continues to have a large positive trade balance in apparels.

Figure 3.1: India's Apparel Exports and Imports to the World (2005-2017)

(In Million US$)

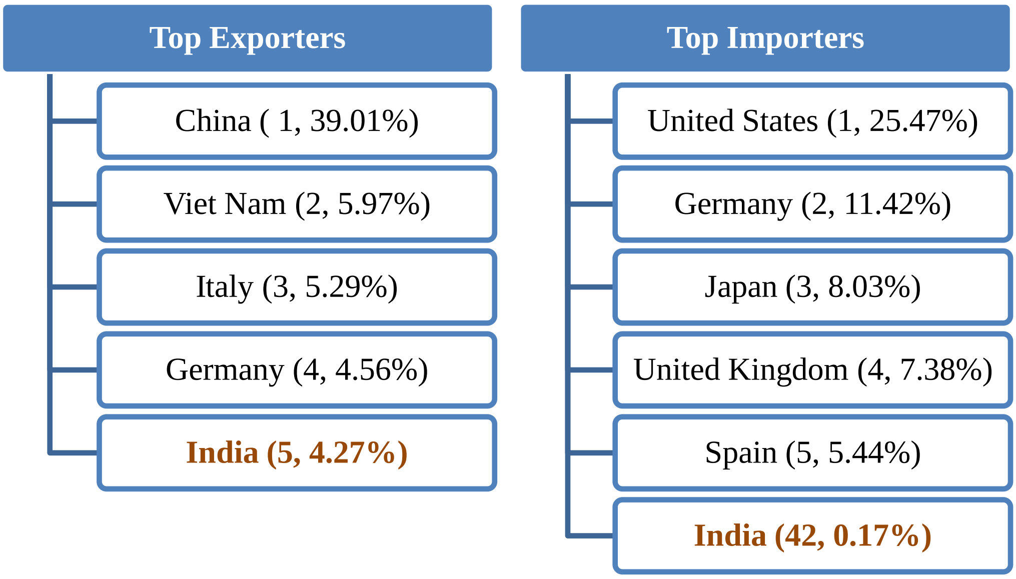


Source: Compiled from WITS database: http://wits.worldbank.org/WITS/WITS/AdvanceQuery/RawTradeData/QueryDefinition.aspx?Page=RawTradeData (accessed on July 30, 2018)

Total global trade in apparels has increased from US$562 billion in 2005 to US$756.8 billion in 2017 and global apparel exports went up from US$287.9 billion in 2005 to US$383 billion in 2017.[11] In 2016, China was the largest exporter of apparels with a share of 39.1 per cent in total world export, followed by Vietnam (5.97 per cent share), Italy (5.29 per cent) and Germany (4.56 per cent). The top global exporters and importers and India's relative position are shown in Figure 3.2.

Figure 3.2: Top 5 Global Exporters and Importers of Apparels and India's Relative Position in 2016[12]

(Rank and Percentage Share)



Source: Compiled from WITS database: http://wits.worldbank.org/WITS/WITS/AdvanceQuery/RawTradeData/QueryDefinition.aspx?Page=RawTradeData (accessed on 30 July 2018)

On the import side, the EU[13] is the top importing destination with a share of 30.06 per cent. By country, the US has the largest share in imports (25.47 per cent). India is not among the top importers of apparel (Figure 4.2).

In 2017, the top 10 exporting and importing countries accounted for approximately 74 per cent and 77 per cent respectively of exports and imports. China is the largest exporting country but by region, the EU is the largest exporter. Within the EU, Germany and Italy are the largest exporters of apparel. Among countries, the US is the market leader in the import of apparels while the EU is the largest importing region. Within the EU, Germany, United Kingdom (UK) and Spain are the largest importing countries.

---

[11] Ideally, the world export figures should be equal to the world import figures; however, due to non-reported data points for a few countries, there is a slight variation between the trade figures in 2017

[12] Since the data for a few countries are not reported for 2017, this table has been compiled using data for the year 2016.

[13] The analysis includes 28 Member States including the UK.

3.1 India's Trade: By Country

India's top five export destinations for apparels for the year 2016 are given in Table 3.1. The top five markets account for approximately 64.6 per cent of total exports, with the US having the largest share. The top 10 export markets, which include countries such as US, Germany, Sweden, Mexico, etc., accounted for 76.1 per cent of India's apparel exports in the same year. This shows that India's exports are fairly concentrated in a few key markets. Further, as a region, the EU is India's largest export destination – 35.2 per cent of all apparels exported are sent to the EU and within the EU, the key markets include the UK, Germany and France. Interestingly, the United Arab Emirates (UAE) is a key export market for India but it is not among the top 10 importers globally. This may be because Dubai is a free port and global brands source from Dubai. This may also be because Indian exporters are trying to avoid countervailing duties in key markets such as the US. For imports, 35.7 per cent of all Indian apparels imported are from China; the EU is the third largest. An estimated 16.7 per cent of all imported apparels come from the EU. Given that export and import destinations are fairly concentrated, trade agreements with such countries and some of their domestic policies are expected to play a key role in India's apparel exports and imports. This is discussed in detail in Section 4.

Table 3.1: India's Key Export and Import Markets for Apparels in 2016

(Rank and Percentage Share)

India's Top 5 Export Destinations	India's Top 5 Import Sources
US (1, 22.5%)	China (1, 35.70%)
UAE (2, 20.70%)	Bangladesh (2, 24.90%)
United Kingdom (3, 9.88%)	Spain (3, 9.66%)
Germany (4, 6.69%)	Sri Lanka (4, 5.17%)
France (5, 4.80%)	Italy (5, 3.26%)

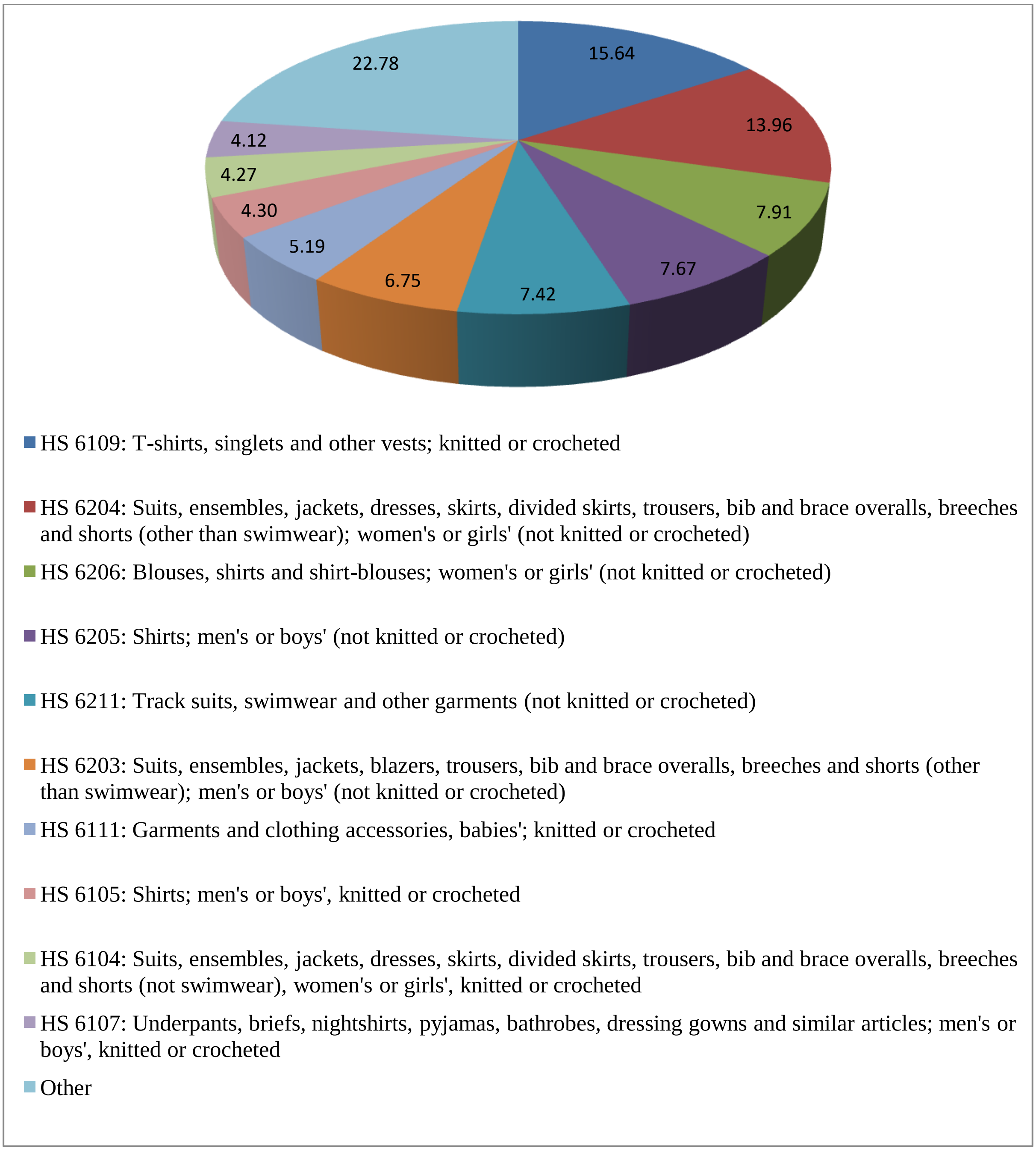
Source: Compiled from WITS database: http://wits.worldbank.org/WITS/WITS/AdvanceQuery/RawTradeData/QueryDefinition.aspx?Page=RawTradeData (accessed on July 30, 2018)

3.2 India's Trade: By Product Categories

Within apparel, a total of 34 products are traded between India and the world at the 4-digit HS code level (see Table A.1 for the complete list of products). Out of these 34 products, 'T-shirts, singlets and other vests (HS-6109)'; 'Suits, ensembles, jackets, dresses (HS-6204)' & 'Blouses, shirts, shirt-blouses (HS-6206)' accounted for more than 30 per cent of the exports while the top 10 products constituted around 77 per cent of all apparels exported (see Figure 3.3).

Figure 3.3: Key Indian Apparels Exported to the World-2017

(In Percentage)



Source: Compiled from WITS database: http://wits.worldbank.org/WITS/WITS/AdvanceQuery/RawTradeData/QueryDefinition.aspx?Page=RawTradeData (accessed on July 30, 2018)

3.3 Trade Competitiveness Analysis

Trade competitiveness is often used to gauge a country's trade related macroeconomic performance. In empirical research on trade, one common measure of trade competitiveness or comparative advantage is the 'Revealed Comparative Advantage (RCA)' Index. The most popular index is Balassa's RCA index (BRCA).

The calculation methodology of BRCA is discussed in Box 3.1; using this, we have calculated the index for the 34 apparel product lines at the 4-digit HS code level for the years 2013 and 2016. This is shown in Table 3.2. RCA alone, however, only shows the goods in which countries tend to specialise for trade. It does not reveal the sources of comparative advantage.

Box 3.1: Balassa's Revealed Comparative Advantage Index

Balassa's (1965) Index of Revealed Comparative Advantage (BRCA) is calculated by using the following formula:

$BRCA_{ij} = (x_{ij}/X_{it}) / (x_{wj}/X_{wt})$

where x_{ij} and x_{wj} are the values of country i's exports of product j and world exports of product j and where X_{it} and X_{wt} refer to the country's total exports and world total exports.

$BRCA_{ij}$>1(or <1) signifies country i's comparative advantage (disadvantage) in commodity j and equal to 1 indicates that country i has "neutral" comparative advantage in commodity j

Source: Balassa (1965)

Table 3.2: Revealed Comparative Advantage of India's Apparel Exports (2013 and 2016)

4-digit HS Codes	Product Name	BRCA Index	
		2013	2016
6101	Coats; men's or boys' overcoats, car-coats, capes, cloaks, anoraks, ski-jackets, wind-cheaters, wind-jackets and similar articles; knitted or crocheted, other than those of heading no. 6103	0.16	0.18
6102	Coats; women's or girls' overcoats, car-coats, capes, cloaks, anoraks, ski-jackets, wind-cheaters, wind-jackets and similar articles, knitted or crocheted, other than those of heading no. 6104	0.21	0.18
6103	Suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches, shorts (not swimwear); men's or boys', knitted or crocheted	0.92	2.48
6104	Suits, ensembles, jackets, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (not swimwear), women's or girls', knitted or crocheted	0.80	1.35
6105	Shirts; men's or boys', knitted or crocheted	4.18	6.60
6106	Blouses, shirts and shirt-blouses; women's or girls', knitted or crocheted	2.56	2.09
6107	Underpants, briefs, nightshirts, pyjamas, bathrobes, dressing gowns and similar articles; men's or boys', knitted or crocheted	3.72	5.20
6108	Slips, petticoats, briefs, panties, nightdresses, pyjamas, negligees, bathrobes, dressing gowns and similar articles; women's or girls', knitted or crocheted	2.44	3.15
6109	T-shirts, singlets and other vests; knitted or crocheted	3.40	4.36
6110	Jerseys, pullovers, cardigans, waistcoats and similar articles; knitted or crocheted	0.29	0.41
6111	Garments and clothing accessories, babies'; knitted or crocheted	5.79	8.07

6112	Track suits, ski suits and swimwear; knitted or crocheted	0.23	0.12
6113	Garments made up of knitted or crocheted fabrics of heading no. 5903, 5906 and 5907	0.02	0.02
6114	Garments; knitted or crocheted, n.e.c. in chapter 61	4.33	4.84
6115	Hosiery; panty hose, tights, stockings, socks and other hosiery, including graduated compression hosiery (for example, stockings for varicose veins) and footwear without applied soles, knitted or crocheted	0.29	0.34
6116	Gloves, mittens and mitts; knitted or crocheted	0.34	0.37
6117	Clothing accessories; made up, knitted or crocheted, knitted or crocheted parts of garments or of clothing accessories	0.80	0.95
6201	Overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind-jackets and similar articles, men's or boys', other than those of heading no. 6203 (not knitted or crocheted)	0.09	0.06
6202	Coats; women's or girls' overcoats, carcoats, capes, cloaks, anoraks, ski-jackets, wind-cheaters, wind-jackets and similar articles, other than those of heading no. 6204 (not knitted or crocheted)	0.05	0.05
6203	Suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (other than swimwear); men's or boys' (not knitted or crocheted)	1.36	1.74
6204	Suits, ensembles, jackets, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (other than swimwear); women's or girls' (not knitted or crocheted)	2.41	2.49
6205	Shirts; men's or boys' (not knitted or crocheted)	4.14	6.08
6206	Blouses, shirts and shirt-blouses; women's or girls' (not knitted or crocheted)	6.83	6.46
6207	Singlets and other vests, underpants, briefs, night-shirts, pyjamas, bathrobes, dressing gowns and similar articles; men's or boys' (not knitted or crocheted)	2.54	6.17
6208	Singlets and other vests, slips, petticoats, briefs, panties, nightdresses, pyjamas, negligees, bathrobes, dressing gowns and similar articles; women's or girls' (not knitted or crocheted)	4.17	6.09
6209	Garments and clothing accessories; babies' (not knitted or crocheted)	6.89	7.92
6210	Garments made up of fabrics of heading no. 5602, 5603, 5903, 5906 or 5907 (not knitted or crocheted)	0.10	0.04
6211	Track suits, swimwear and other garments (not knitted or crocheted)	3.84	5.34
6212	Brassieres, girdles, corsets, braces, suspenders, garters and similar articles and parts thereof; whether or not knitted or crocheted	0.54	0.73
6213	Handkerchiefs (not knitted or crocheted)	1.55	1.90
6214	Shawls, scarves, mufflers, mantillas, veils and the like (not knitted or crocheted)	9.83	8.59
6215	Ties, bow ties and cravats (not knitted or crocheted)	0.11	0.19
6216	Gloves, mittens and mitts (not knitted or crocheted)	1.17	1.44
6217	Clothing accessories n.e.c.; parts of garments or accessories other than those of heading no. 6212 (not knitted or crocheted)	0.82	0.67

Source: Authors' calculation using WITS database: https://wits.worldbank.org/wits/wits/witshelp/Content/Utilities/e1.trade_indicators.htm (accessed on 23 August 2018)

Note: The sub-categories in which India enjoyed a comparative advantage are shaded

In 2013, 18 out of 34 apparel products enjoyed comparative advantage while in 2016, India's comparative advantage increased to 20 product categories (See Table 3.2). Overall, India has a comparative advantage in a number of product categories. Comparing the export competitiveness with actual exports (as shown in Figure 3.3), it can be seen that India has a significant comparative advantage in the export of 'Shawls, scarves, mufflers, mantillas, veils and the like (not knitted or crocheted) (HS-6214)', but this product is not among the top 10 exports. This needs further investigation. Possible reasons could be that government and industry bodies may not have tried to aggressively market the product since it currently constitutes a small segment of exports, and/or the product may be linked to a niche clientele and, therefore, export volumes are low.

4. Trade Agreements and Importing Countries' Policies: Impact on India's Exports

India and a number of key apparel importing and exporting countries are founding members of the WTO, while some of India's export competitors such as China and Vietnam acceded to the WTO at a later date.[14] The WTO aims to reduce both tariff and non-tariff barriers to trade through multilateral negotiations. Countries can autonomously reduce tariffs as well, but binding them under a trade agreement provides a predictable trade regime as it becomes difficult for a country to roll back its commitments in trade agreements without compensating trading partners.

Over the last decade, with slow progress in the WTO's Doha round of negotiations, there has been a proliferation of FTAs/preferential trade agreements among WTO members, both at regional [such as EU/Association of South East Asian Nations (ASEAN)] and bilateral (such as US-Korea FTA) level (Brown and Stern, 2011; Horn et al., 2010). These trade agreements have led on the one hand to a reduction in tariff and non-tariff barriers to trade facilitating trade between countries that are members to such agreements; on the other, they may have an adverse impact on countries that are not party to such agreements and hence, distort trade (Saggi, Stoyanov and Yildiz, 2018).

Trade agreements have affected apparel trade flows. Key exporters and importers of apparel have seen increased trade in apparel over the decade due to the signing of several bilateral and regional trade agreements [United Nations Conference on Trade and Development (UNCTAD), 2007; Brenton and Hoppe, 2007]. Emerging economies like Turkey, Republic of Korea and Vietnam, which are among the top global apparel exporting countries, are actively engaged in trade agreements. China was a top global apparel exporter even before it joined the WTO, but with its accession to the WTO in 2001, its apparel exports have increased further. Today, China is both a leading exporter and importer of apparel products. Table 4.1 presents a snapshot of the FTAs (enforced and those on which negotiations are still ongoing) between a few major exporters and leading importers of apparel.

[14] China acceded to the WTO on December 11, 2001. Vietnam acceded to the WTO on January 11, 2007.

Table 4.1: Select Free Trade Agreements between Major Apparel Exporters and Importers

Importers → / Exporters ↓	US	EU	Japan	China
China	No	No	No ***Ongoing:*** - *China-Japan-Korea FTA* - *RCEP*	NA
India	No	No ***Negotiations have been Stalled:*** *India-EU Broadbased Trade and Investment Agreement*	***Enforced:*** *Japan-India Comprehensive Economic Partnership (CEPA) Agreement (August 1, 2011)*	No ***Ongoing:*** *RCEP*
Turkey	No	***Enforced:*** *Turkey-EU Customs Union (December 31, 1995)*	No ***Ongoing:*** *Japan-Turkey Economic Partnership Agreement*	No
Republic of Korea	***Enforced:*** *US-Korea FTA (March 15, 2012)*	***Enforced:*** *EU-Republic of Korea FTA (December 13, 2015)*	No ***Ongoing:*** - *China-Japan-Korea FTA* - *RCEP*	***Enforced:*** *China-Republic of Korea FTA (December 20, 2015).*
Vietnam	***Enforced*** *US-Vietnam Bilateral Trade Agreement (December 10, 2001).*	No ***To be Enforced:*** *Vietnam-EU FTA (Due to be signed and enforced by 2018).*	***Enforced:*** *Japan-Vietnam Economic Partnership Agreement (October 1, 2009)*	No ***Ongoing:*** *RCEP*

Source: Compiled from various country specific official government websites[15]

Note: Enforcement dates are in brackets

India does not have trade agreements with its key apparel import markets such as the EU, the US, and the UAE. Among these, the EU and the US have high tariffs on apparel imports. This puts India at a disadvantageous position when compared to its competitors like the Republic of Korea, Turkey and Vietnam, who have an FTA with either US or EU or both (as in the case of the Republic of Korea), which allows them to have duty free/zero tariff rates.

[15] China- http://fta.mofcom.gov.cn/topic/chinarh.shtml ;
US- https://ustr.gov/trade-agreements/free-trade-agreements;
EU- http://ec.europa.eu/trade/policy/countries-and-regions/negotiations-and-agreements/#_being-negotiated;
Turkey- http://yoikk.gov.tr/upload/idb/ftascompatibilitymode.pdf ;
Japan- https://www.mofa.go.jp/policy/economy/fta/index.html ;
India- http://commerce.gov.in/InnerContent.aspx?Type=InternationalTrademenu&Id=32 ;
Korea- http://www.customs.go.kr/kcshome/main/content/ContentView.do?contentId=CONTENT_ID_000002320&layoutMenuNo=23225; (accessed on September 5, 2018)

Japan is also a major global importer of apparels and has an FTA with India. However, Japan is not among India's top apparel export markets.

While China does not have any FTA with the US and the EU, a number of global brands are sourcing from China due to its capabilities to do bulk production at competitive rates (Pfohl and Shen, 2008). Chinese firms in the export business are much larger as compared to Indian firms and they enjoy large economies of scale (Minian, Martinez and Ibanez, 2016). In other countries such as Vietnam, firms in export businesses such as Dapto Company, New Connection Pty Limited and Far East Garment Services are large. Discussions with Indian firms show that, unlike Chinese firms, a majority of the firms are small and mid-sized and they operate at low volumes, with low technology adaptation and low-profit margins (around 5 per cent).

Further, the presence of global retailers and sourcing agents in India is not as much as in China and other countries like Turkey and Vietnam. This is primarily due to the restrictions on foreign investment in retail. All other developing countries, which are major apparel exporters, have a liberal foreign investment policy, which has allowed global retailers and brands to enter the domestic market and source from it. Further, certain domestic and trade policies (including high import tariffs on raw materials) in India and the business practices of firms, prevent scale expansion and establishment of GVCs (see Section 5).

Since India does not have trade agreements with some key importing countries, Indian firms in the export business are more susceptible to higher tariffs in destination markets compared to firms from countries that have trade agreements with their key export markets. Therefore, Indian firms have shown interest in the implementation of zero tariff rates (known as zero-for zero) under bilateral trade agreements with specific trading partners such as the EU.

Tariff rates faced by Indian apparel exporters and the likely impact of tariff liberalisation under trade agreements are discussed below.

4.1 Tariff Analysis

As discussed above, apparel exports of India face high tariffs in key importing countries and regions like the US and the EU. Table 4.2 presents examples of tariff rates imposed at the 6-digit HS code level by three markets namely the EU, US and Japan. Among them, India does not have trade agreements with the EU and the US. India has a comprehensive trade agreement with Japan (known as the Comprehensive Economic Partnership Agreement - CEPA), in which both countries reduced tariffs to zero for the apparel sector. India has trade agreements/preferential tariffs with a number of countries (for example, Thailand, Malaysia) and regions such as ASEAN, but the country has not given zero tariffs to these FTA partners on apparel imports. Hence, Japan has been chosen for the tariff analysis. India is now negotiating the RCEP and may have to liberalise tariffs in the case of a number of apparel exporting countries. This analysis is in that context.

Some key products that India exports or in which India has a comparative advantage (see Figure 3.3 and Table 3.2) have been selected to examine the impact of higher tariffs and tariff liberalisation under trade agreements.

Table 4.2: Examples of Tariffs Imposed on Apparel Exports by the EU, US and Japan

(*In percentage*)

EU			
Example of Products	T-shirts and Singlets (HS-610990)	Cotton Jackets (HS-610413)	Silk Shawls and Scarves (HS-621490)
Autonomous Rate	12.00	12.00	8.00
GSP (for India)	9.60	9.60	6.40
US			
Example of Products	T-shirts and Singlets (HS-610990)	Cotton Jackets (HS-610413)	Silk Shawls and Scarves (HS-621490)
Autonomous Rate	32.00	14.90	11.30
Japan			
Example of Products	T-shirts and Singlets (HS-610990)	Cotton Jackets (HS-610413)	Silk Shawls and Scarves (HS-621490)
Autonomous Rate	11.20	11.90	6.60
Tariff Rate for India under CEPA	0.00	0.00	0.00

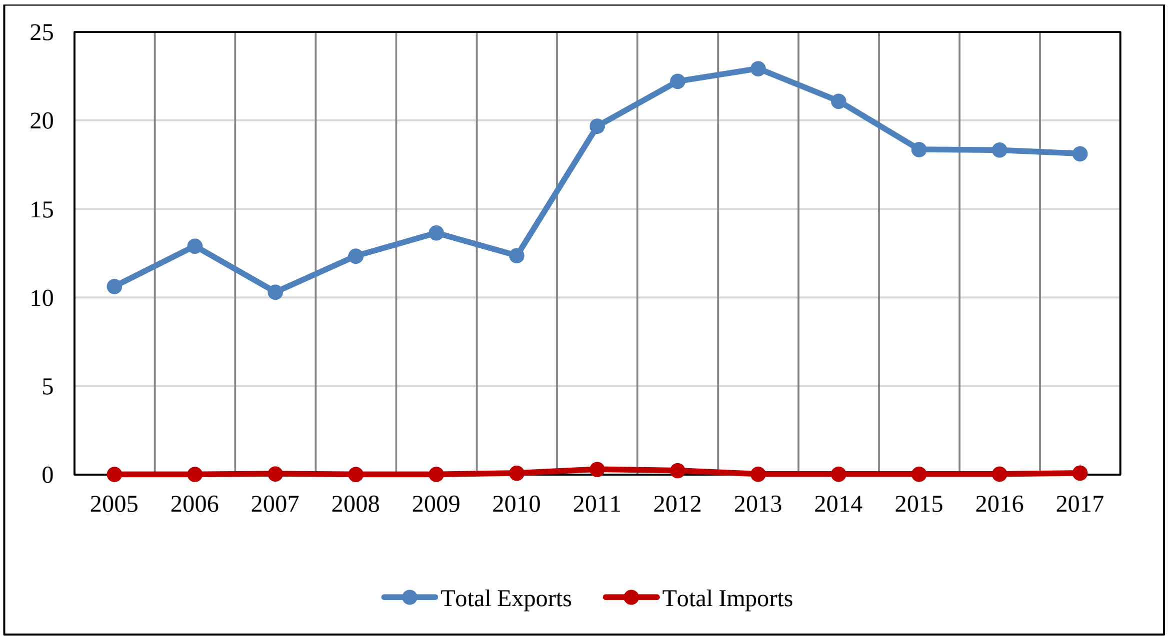
Source: See Table 2.1

As seen in Table 4.2, 'T-shirts and Singlets' is the largest export item for India accounting for approximately 16 per cent of total apparel exports. In this sub-category, the US imposes a tariff rate of 32 per cent, which can severely affect India's competitiveness *vis-à-vis* countries that face zero tariffs under a trade agreement with the US. Similarly, although it exports less of these items, India has a strong comparative advantage in the export of 'Silk Shawls and Scarves' (see Table A.1 in Appendix). In this sub-category, the country faces a high tariff rate of 11.3 per cent in the US. By contrast, the Republic of Korea has a trade agreement with the US and the EU. In the case of the EU, Turkey enjoys a zero tariff rate being part of the Customs Union. While the apparel industry was looking forward to India's trade agreement with the EU, the agreement has been stalled after several rounds of negotiations. India is yet to launch a trade negotiation with the US. Given that the US is now taking protectionist measures and is threatening to increase tariffs, countries such as the Republic of Korea and Mexico, which have trade agreements with the US, are at an advantage. If the US implements protectionist measures, these countries can seek compensation under the trade agreements.

Under the India-Japan CEPA, apparels exported from India are subjected to a zero tariff rate. Figure 4.1 shows that apparel exports to Japan first increased after signing of the India-Japan CEPA agreement but later fell and now it is constant. Imports from Japan are low and India has a large positive trade balance with Japan in apparels (See Figure 4.1).

Figure 4.1: India's Trade in Apparels with Japan (2005-2017)

(In Million US$)



Source: Compiled from UNCOMTRADE Database: https://comtrade.un.org/data/ (accessed September 6, 2018)

Note: The India-Japan CEPA was enforced on 1 August 2011

India is among the top ten sources of Japanese import of apparels, but its share in the Japanese market is only 0.09 per cent *vis-à-vis* competing economies like China, Vietnam and Bangladesh, which have shares of 6.46 per cent, 1.17 per cent and 0.34 per cent, respectively. Similarly, India has a very low share (0.05 per cent) as an export destination for Japan and does not feature in its top 10 export destinations for apparels. Japan's key export destinations in apparel include Hong Kong, China, Republic of Korea, US and Taiwan.[16] Thus, it is necessary to investigate why Indian exporters are not able to increase their export shares in Japan despite zero tariffs under the trade agreement.

4.2 Generalised Scheme of Preferences

It is well documented in the literature that high tariffs in developed countries adversely affect exports from developing countries and their growth and employment (Krueger, 1997; Yannikaya, 2003; Aggarwal, 2004). Realising this, developed countries/regions such as the EU and US[17] came up with the GSP. The EU's goal for the GSP is to allow vulnerable developing nations (for example, India, Vietnam, Bangladesh) to pay lower or no tariffs on exports to the EU. The EU gives three different types of GSP, which are listed below:

---

16 For political reasons, the United Nations is not allowed to show trade statistics referring to Taiwan, Province of China. In the partner breakdown Taiwan, Province of China, is included under "Other Asia, not elsewhere specified".

17 In the US, the GSP stands for Generalised System of Preferences

- *The general arrangement (Standard GSP) grants duty reductions for around 66 per cent of all EU tariff lines to low-income or lower-middle income countries which do not benefit from other preferential trade access to the EU market. India is under this list.*

- *The special incentive arrangement for 'Sustainable Development and Good Governance (GSP+)' grants full duty suspension for essentially the same 66 per cent of tariff lines as 'Standard GSP' to eligible countries vulnerable in terms of economic diversification and export volumes. In return, beneficiary countries must ratify and effectively implement 27 core international conventions, as listed in the GSP Regulation, which cover human and labour rights, environmental protection and good governance.*

- *The special arrangement 'Everything but Arms (EBA)' grants full duty-free, quota free access for all products except arms and ammunition to countries classified by the United Nations as LDCs.*

-Extracted from European Commission (2018), pp.1

The US GSP is designed to promote economic growth in developing countries by providing preferential duty-free entry. While the aims look similar, the US and the EU operate on different terms and conditions for GSP, which has implications for their trading partners.

India, Vietnam and other countries such as Sri Lanka are beneficiaries under the EU's Standard GSP[18] and enjoy preferential treatment under which exporters from these countries pay a 20 per cent lower tariff rate (see Table 4.2) on apparels. Sri Lanka, Pakistan and The Philippines are in the GSP+ list and LDCs such as Bangladesh and Cambodia get a zero tariff preference under the EBA agreement of the EU's GSP scheme. This has given apparel exporters from the LDCs a competitive edge *vis-à-vis* Indian exporters. The European Commission (2018) has highlighted that during the period 2016-17, India, Vietnam and Bangladesh have been the largest GSP beneficiaries, with India accounting for 53 per cent of the Standard GSP preferences, while Bangladesh accounted for 66 per cent of the EBA-GSP preference. Studies have shown that EBA has generated employment opportunities in the ready-made garment industry in Bangladesh, contributed to its growth and led to overall socio-economic development (see Lopez-Acevedo and Robertson, 2016).

In the US, some apparel products are eligible for GSP while others are not.[19] GSP is given to apparel to selected developing countries subject to certain conditions and developing

[18] Only certain Indian products (like textiles) have graduated from the GSP; apparels are still a beneficiary under the standard GSP rate.

[19] See: https://ustr.gov/sites/default/files/files/gsp/Dutiable%20products%20not%20eligible%20for%20GSP%20July%202017.pdf and https://ustr.gov/sites/default/files/gsp/GSP%20eligible%20textile%20apparel%20and%20travel%20goods%20products%20June%202018.pdf (accessed on October 25, 2018)

countries such as India, Vietnam and Bangladesh, are not eligible. Further, they do not enjoy zero tariffs as is enjoyed by countries that have a FTA with the US.

Overall, India seems to be at a disadvantage *vis-à-vis* its competitors because it does not have a trade agreement with its key destination markets.

Focusing on India's own policies, India imposes an MFN tariff rate of 25 per cent or higher on imports of apparels. As of now, imports are low and the country has a large positive trade balance in this sector. However, if the country enters into trade agreements such as the RCEP and offers to open up the apparel sector under zero-for-zero tariff arrangements, it will be important to first examine the effect of the measure, especially when other key exporters such as Vietnam and China will be a part of this agreement and most of the RCEP member countries already have or are negotiating a fairly open trade agreement with China.

It is a matter of concern that in spite of having tariff restrictions on imports and perceived domestic competitiveness, India's apparel exports are stagnating. During the fiscal year 2017-18, apparel exports declined by 3.8 per cent in dollar terms and by 7.6 per cent in rupee terms.[20] Therefore, the issues faced by this sector need further investigation.

5. Issues Affecting Apparel Sector's Export Competitiveness

A number of studies have shown that the decline in exports and India's competitiveness in the apparel sector *vis-à-vis* its competitors may be due to several factors, some of which are given below. The meetings with industry and experts also confirm the concerns identified by existing literature.

- **Low level of investment in research and development (R&D) and in the adoption of advanced technology:** A number of studies have shown that India mainly produces lower value-added apparel products and there is low level of investment in R&D and in adoption of advanced technology (Ministry of Textiles and Technopak, 2018; Varukolu, 2007) by Indian firms *vis-à-vis* their global competitors. Further, the fragmented nature of the apparel sector with a pre-dominance of small and mid-sized firms adversely affects its competitiveness (for details, see Lopez-Acevedo and Robertson, 2016). By contrast, in Turkey, apparel firms are represented at all levels of the value-chain (Evgeniev and Gereffi, 2008). Firms in countries such as China invest heavily in automation and R&D, leading to increased productivity and improvement in quality.

  An analysis of country policy and firm competitiveness in other competing countries like Vietnam and Bangladesh shows that large size firms in the apparel export sector have made investments in R&D and in adoption of advanced technology, design and quality (Moazzem and Sehrin, 2016; IDS Report[21]). In Vietnam, the five-stage integration scheme initiated by the Vietnam National Textile and Garment Group (VINATEX)

[20] Source: https://thewire.in/economy/squeezed-domestically-and-globally-indias-garment-exports-are-being-stretched-thin (accessed on August 3, 2018)

[21] Source: https://www.ids.trade/files/actif_report_on_vietnam_textile_and_garment_industry.pdf (accessed on August 10, 2018)

encourages technology transfer from foreign investors/buyers to local producers, thus helping apparel manufacturers move up the value chain (Tran, 2012). If such measures are not taken by India, studies have concluded that it will be difficult for the country to move up the value chain (UNCTAD Report, 2015) and retain market share in key markets such as the EU and US, which are now opening up to new suppliers such as Cambodia..

- **Fragmented industry and quality issues:** The discussions with experts confirmed that weaving is largely in the unorganised/informal sector. It is fragmented - the output of individual manufacturing unit is low and of variable quality. This leads to (a) lack of uniformity in fabrics used for apparel manufacturing and (b) concerns related to product traceability, uniform quality and standards.

- **Inadequate product diversification**: Studies show that India has inadequate presence in the synthetic value chain. This is mainly because traditionally, India has a strong base in the production of natural fibres especially cotton. Most of the synthetic fibres are imported and between 2010 and 2016, synthetic fibre production has declined at a CAGR of 6.8 per cent (Ministry of Textiles and Technopak, 2018). Further, India's apparel exports are mostly seasonal, with high export demand during the summers for apparel products like t-shirts, singlets, shirts, dresses, skirts, etc., (covered under HS-6109 and HS-6204), which are mostly cotton-based, and lower export demand for winter clothing such as overcoats, sweaters and jackets (covered under HS-6201 and HS-6202), which require higher value-chain production capability and are mostly synthetic-based. Figure 3.3 shows that while the share of exports of HS-6109 and HS-6204 was around 30 per cent, the share of exports under HS-6201 and HS-6202 was merely 0.18 per cent in the year 2017. This according to industry experts is a matter of concern since the global synthetic apparel trade is increasing. Between 2010 and 2015, synthetic apparel trade grew by 3.5 times that of cotton apparel trade. Moreover, globally the consumption of synthetic fibre per capita (in kilograms) has outpaced the consumption of natural fibres (Ministry of Textiles and Technopak, 2018).

- **Issues related to workforce:** India is often considered to be a low wage country. However, if one compares the productivity linked wages, sector experts pointed out that Vietnam and Bangladesh are much more competitive than India. With the growth of export-oriented apparel industry in lower wage countries such as Cambodia, India's advantage as a low wage country may not be there in the future. The Indian apparel industry has comparatively fewer skilled workers *vis-à-vis* many of its competitors from developing countries. While the Government of India has programmes such as ISDS of the Ministry of Textiles, *Deen Dayal Upadhaya-Grameen Kaushal Vikas Yojana* and *Pradhan Mantri Kaushal Vikas Yojana* of the Ministry of Skills, these largely focus on entry level job creation and do not cover advanced training in areas such as automation (Ministry of Textiles and Technopak, 2018). While India used to have a competitive edge in designing, it has shortage of skills in areas such as e-pattern designing. As Indian industry moves to adopt industry 4.0, the survey found that it is likely to face a severe shortage of skills unless there is greater focus on skill development. Global best practices show that large apparel exporting economies like Vietnam and Turkey invest in a range of skill development programmes. Turkey has the benefit of a highly skilled workforce, a majority of which acquire advanced training and skills by working with global brands such as Levi Strauss and Hugo Boss (Evgeniev and Gereffi, 2008). The country's numerous workforce initiatives such as the JO-IN project, Horizons 2010 and specialised courses and certifications in information systems, design, marketing, tailoring, etc., provided by vocational schools and public universities have contributed towards the upgradation of the skills of workers in the apparel sector (Fernandez-Stark, Frederick and Gereffi, 2011). In the case of Vietnam, due to the availability of an abundant skilled workforce at relatively low cost, apparel manufacturers have increasingly produced high quality, high value-added and branded products.[22] Vietnam also runs the Vocational and Technical Education Training (known as VTET) and provides modular employable skills (known as MES)[23] through various district-level training centres and institutions (Ministry of Textiles and Technopak, 2016). Other issues related to labour include lack of basic education, high attrition rates in the industry (sometimes companies have new labour force in 3-4 years), availability of alternative low-skilled employment opportunities and high rates of absenteeism.

- **SEZs and other foreign policy related concerns:** Studies show that firms in SEZs have not been able to bring in the desired investment or enhance exports or become a part of GVCs due to lack of synergy between India's SEZ and trade policies (see Mukherjee et al., 2016). For example, apparel shipped from an SEZ in India to the domestic tariff area (DTA) will face a high import duty of 25 per cent as compared to facing a zero duty, if the same product is imported from a country with which India has a trade agreement. This discourages the location of firms in Indian SEZs.

  Unlike India, countries such as Bangladesh have been able to attract foreign investment in apparel export zones from countries such as the Republic of Korea (see Aggarwal et al., 2008) through various fiscal and non-fiscal incentives [for details, see Bangladesh Investment Development Authority (BIDA)[24]]. Bangladesh SEZs offer flexible labour laws, assured power supply and easy acquisition of land at highly subsidised rates (Mukherjee et al., 2016; Farole and Akinci, 2011). In the case of Vietnam, SEZs started developing in the early 2000s (first SEZ established in 2003)[25] and the country has been able to gain significant amounts of investments in its SEZs in a very short span of time from countries such as the US, the Republic of Korea and Taiwan. These investments have played a pivotal role in the growth of Vietnam's manufacturing base and the export-oriented garment industry, which has seen an increased inflow of technology transfer

[22] Source: https://www.ids.trade/files/actif_report_on_vietnam_textile_and_garment_industry.pdf (accessed on August 10, 2018)

[23] Source: http://texmin.nic.in/sites/default/files/Enhancing_Export_Competitiveness_Textile_Sector_03042018.pdf (accessed on August 30, 2018)

[24] Source: http://bida.portal.gov.bd/site/page/2ddc95d1-a9f6-4570-a3c9-b5e92da7652a/Fiscal-&-Non-Fiscal-Incentives (accessed on September 6, 2018)

[25] Source: https://www.unido.org/sites/default/files/2015-08/UCO_Viet_Nam_Study_FINAL_0.pdf (accessed on August 27, 2018)

through these investments (Goto, 2012). In addition to this, unlike Indian SEZs, the fiscal incentives provided through the SEZ policies in countries such as Vietnam are in line with the WTO. On May 30, 2006, Vietnam removed all export-contingent subsidies given to the textiles and apparel sector (see USTR, 2008).

- **High logistics and other costs:** Logistics costs in India amount to approximately 14 per cent of the GDP, whereas in other developing countries, these costs amount to less than 8 per cent of the GDP.[26] As per the World Bank's Logistics Performance Index (LPI) (see Arvis et al., 2018), in 2017, India ranked 44, which is a decline of 8 places as compared to its rank in 2015 (see Arvis et al., 2016). India's rank is lower *vis-à-vis* competing economies like the Republic of Korea (25), China (26) and Vietnam (39) (see Table 5.1). This is a cause for concern especially when the country is implementing the WTO's Trade Facilitation Agreement.

Table 5.1: Logistics Performance Index – India and Vietnam (2015 and 2017)

	India			Vietnam		
	2015	2017	Per cent change	2015	2017	Per cent change
Rank	35	44	-	64	39	-
Score	3.42	3.18	-7.12	2.98	3.27	9.99
Customs	3.17	2.96	-6.61	2.75	2.95	7.26
Infrastructure	3.34	2.91	-12.95	2.70	3.01	11.51
International Shipments	3.36	3.21	-4.52	3.12	3.16	1.03
Logistics Quality and Competence	3.39	3.13	-7.65	2.88	3.40	17.93
Tracking and Tracing	3.52	3.32	-5.67	2.84	3.45	21.35
Timelines	3.74	3.50	-6.44	3.50	3.67	4.96

Source: Extracted from Appendix 1 pp. 40-43 (Arvis et al., 2016) and Appendix 1, pp. 38-41 (Arvis et al., 2018)

The costs of power, transportation, labour and corporate taxes are higher in India as compared to those in China and Bangladesh. Other studies show that due to high logistics and production costs, India is not able to be a part of GVCs (for example, see Ray and Miglani, 2018). The discussions with experts show that the supply chain is spread across multiple states which increase transportation costs. For example, the weaving units are mostly located in a few states such as Maharashtra, Gujarat and Tamil Nadu, whereas export focussed apparel manufacturing units are concentrated in cities in other states such as National Capital Region and Bengaluru which adds to the transportation costs. According to the World Bank's Ease of Doing Business Index (2018), India ranked 100 in 2017,[27] which is an improvement of 30 places from the previous year, but still unfavourable when compared to other countries such as the Republic of Korea (4), Vietnam (68) and China (78). Thus, India is still at a disadvantage *vis-à-vis* its competitors in offering the conducive business environment required to enhance the global competitiveness of its firms.

[26] Source: http://www.assocham.org/downloads/?filename=1455984479.pdf (accessed on August 17, 2018)
[27] Source: http://www.doingbusiness.org/data/exploreeconomies/india (accessed on August 17, 2018)

- **Tax policies adversely affecting scale expansion:** The corporate tax rate in India is 30 per cent for domestic companies and higher (40 per cent) for foreign companies and branches of foreign companies. Overall, the corporate tax rate is high compared to that in countries like Vietnam (20 per cent), the Republic of Korea (25 per cent) and Turkey (22 per cent).[28] The corporate tax rate for small domestic companies (total turnover of up to INR 500 million) in the financial year 2015-16 was lowered to 25 per cent, which discourages scale expansion. It is important for exporters in the apparel sector to gain scale. Unless they have scale, they cannot adopt new technology, engage skilled workers or cater to the volumes demanded by global retailers and brands. Further, for exports, firms in the apparel sector have to move from the informal/unorganised to the formal/organised sector. While the single Goods and Services Tax (GST) has created a framework to enable firms to adopt certain formal practices (such as regular filing of returns) and gain scale, the lower corporate tax rate incentivises them to remain small. A number of manufacturers in the apparel sector have several units/firms to avoid paying taxes. This leads to inefficient business models. Ideally, instead of taxing small and medium enterprises (SMEs) at a lower rate, subsidies and other incentives should be given to SMEs as is done by other countries.

Interviews with industry experts show that some apparel firms (especially SMEs) had difficulty understanding and ensuring GST compliance and there were issues related to GST and some schemes and benefits given by the government. For example, after the implementation of the GST, under the EPCG scheme, exporters were required to pay the Integrated GST (IGST), and claim a refund of the tax paid.[29] However, due to the difficulty in understanding and complying with the procedural complexities of the tax, the Directorate General of Foreign Trade (DGFT) through a notification (No.54/2015-20)[30] exempted apparel exporters from paying the IGST and compensation cess until October 1, 2018.

The above analysis highlights that some of the barriers are firm dependent while others are policy related or due to gaps in infrastructure. As a developing country, India faces infrastructure gaps, which is likely to be faced by other developing countries as well. Hence, to compete among firms of developing countries, there is need for best practices at the firm level, and for appropriate policy that enables firms to grow and become competitive.

In the past, Indian firms and industry bodies have lobbied with the government for subsidies and tax incentives to cushion them against some of the costs incurred due to factors such as higher taxes or higher logistics costs. The government, on its part, provides various subsidies and tax incentives to cushion the apparel industry from additional costs that may have reduced their global competitiveness. The subsidies are either industry-specific (such as those

[28] Source: https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-corporate-tax-rates.pdf (accessed on August 24, 2018)

[29] Source: https://economictimes.indiatimes.com/news/economy/policy/comm-min-notifies-exemption-from-igst-compensation-cess-under-advance-authorisation-epcg-scheme/articleshow/63419618.cms (accessed on September 28, 2018)

[30] Source: http://dgft.gov.in/sites/default/files/NOTIFICATION%2054%20english.pdf (accessed on October 1, 2018)

provided by the Ministry of Textiles) or they are export-contingent (provided by DGFT, Ministry of Commerce and Industry). The industry-specific subsidies and incentives are there to specifically address the issues faced by the apparel industry in general, whereas, export-contingent subsidies are provided to mitigate the risk related to exports (for example rupee devaluation or global slowdown), improve export performance and competitiveness. There can be other forms of subsides; for example, to support MSMEs, the Ministry of MSME provides certain subsidies and incentives, some of which are applicable and used by the apparel industry.

In total, over 60 different types of subsidies and tax incentives are provided to the apparel sector by central and state governments to support its growth and exports, yet exports are stagnating and concerns are being raised about the industry's competitiveness. Further, discussions with industry representatives reveal that many players, especially the SMEs, are not aware of all the schemes and benefits. There is lack of data and information on the target groups (for example, companies catering to domestic *versus* exporters) of different subsidies, the impact of the subsidies and how easy or difficult it is to claim them, among others. Some industry representatives raised concerns about the procedural hurdles and compliance requirements that lead to under-utilisation of the subsidy. For example, according to the survey participants, the TUFS scheme, which was changed into the Amended TUFS (ATUFS), is a good initiative but due to procedural delays, the take-off of the scheme is slow and the utilisation has been low. For availing of the benefits under the ATUFS, the apparel exporters need to file an application to the Joint Inspection Team (JIT) for physical inspection of the machinery installed by them. This process requires the submission of a total of 15 documents and the process of physical inspection has to be completed by the JIT within a period of 88 days from the time of filing of the application.[31] However, interviews with industry representatives show that the process takes longer (up to a year), which delays the claiming of benefits by exporters. Besides, due to lack of data on target groups and impact analyses, there seem to be concerns related to the monitoring of the schemes and their efficient execution and utilisation. Some survey participants pointed out that subsidies are often provided on an ad-hoc basis.

More importantly, subsides may be prohibited and actionable under the WTO. This is because subsidies can lead to trade distortion by artificially increasing the competitiveness of an exporting industry that would otherwise be non-competitive in the export market (Demidova and Rodriguez-Clare, 2009). Before the discussion of the current situation where the US has raised objections to certain export-linked subsidies given by India, the next section presents a brief overview of the WTO SCM agreement, the definition of subsidies and the type of subsides that are prohibited and actionable.

[31] Source: http://texmin.nic.in/sites/default/files/revised_atufs_guideline_02082018.pdf (accessed on October 1, 2018)

6. The WTO's Agreement on Subsidies and Countervailing Measures

One of the basic objectives of the WTO is to ensure free and fair trade by removing distortions present in international trade. Since certain subsidies are trade distorting, it is important to impose disciplines on these subsidies. To achieve this goal, the WTO has established a set of rules to govern subsidies and export incentives in its member countries. For non-agricultural products, subsidies and export incentives are governed by the SCM Agreement. The apparel industry is covered under this agreement. The WTO is yet to develop a mechanism for disciplining subsidies in services. Therefore, subsidies can be given easily to services used by the Indian apparel industry.

The WTO's SCM Agreement contains a definition of the term "subsidy" based on three basic elements: (i) a financial contribution (ii) made by a government or any public body within the territory of a Member, (iii) which confers a benefit. All three of these elements must be satisfied in order for a subsidy to exist. Thus, the SCM Agreement applies not only to measures of national governments, but also to measures of sub-national governments, and of such public bodies as state-owned companies. A financial contribution may occur by means of direct transfer of funds (for example grants, loans), potential transfer of funds or liabilities (for example loan guarantees), foregoing of government revenue that is otherwise due (for example, fiscal incentives such as income tax holidays), etc.[32]

Even if a measure is a subsidy within the meaning of the SCM Agreement, it is not subject to the disciplines of the SCM Agreement unless the concerned subsidy is a "specific subsidy". There are four types of "specificity" within the meaning of the SCM Agreement as given in Box 6.1. By "specific subsidy", the SCM Agreement means subsidies that are specifically provided to a region, an enterprise or industry (in this case, the apparel industry), or a group of enterprises or industries. In other words, the SCM Agreement will treat a subsidy as a "specific subsidy" if the granting authority limits access to the subsidy to certain enterprises or certain regions. For example, if the central government grants a subsidy exclusively to one state, the subsidy would be a specific subsidy even if it is available to all enterprises of that state. However, if that state government gives subsidies to all enterprises of that state, the subsidy would not be termed a specific subsidy.

[32] For details, See Hoda and Ahuja (2003)

Box 6.1: Specific Subsidies under the SCM Agreement[33]

- **Enterprise-specificity:** A government targets a particular company or companies for subsidisation.
- **Industry-specificity:** A government targets a particular sector or sectors for subsidisation.
- **Regional specificity:** A government targets producers in specified parts of its territory for subsidisation.
- **Prohibited subsidies:** A government targets export goods or goods using domestic inputs for subsidisation.

Two categories of subsidies are defined as prohibited subsidies under Article 3 of the SCM Agreement. These two categories of subsidies are prohibited because they are designed to directly affect trade and thus are most likely to have adverse effects on the interests of other WTO members. The first category consists of subsidies given to a firm or industry that are contingent on export performance. A detailed list of export subsidies is annexed to the SCM Agreement and some of the export contingent subsidies enjoyed by the apparel industry in India are prohibited under the SCM Agreement. The second category consists of subsidies contingent whether solely or as one of several other conditions, upon the use of domestic over imported goods ("local content subsidies"). The apparel industry does not face this kind of subsidy.

All specific subsidies are actionable under the SCM Agreement.[34] Depending upon the trade distorting nature of specific subsidies, the SCM Agreement deals differently with prohibited subsidies and other types of specific subsidies, which can be actionable. The obligations of WTO members in respect of subsides are laid down in terms of a traffic light approach – red, green and amber – which are aligned to the fact that some subsidies are prohibited, others are not only permissible but immune from action by trading partners, and subsides that are generally permissible but actionable in certain circumstances (amber).

According to the SCM Agreement, if a country grants or maintains prohibited subsidies, then other member countries can initiate remedial actions against the errant country. According to Article 4 of the SCM Agreement, a complaining member can request consultations with the offending member. If the two members fail to arrive at a mutually agreed solution about the subsidy within a stipulated period, the matter is referred to the Dispute Settlement Board (DSB) of the WTO. If the dispute settlement procedure confirms that the subsidy is

[33] Source: https://www.wto.org/english/tratop_e/scm_e/subs_e.htm (accessed on August 17, 2018)

[34] The SCM Agreement, as it originally entered into force, contained a third category of specific subsidies called non-actionable subsidies. This category, applied provisionally for five years ending December 31, 1999, and pursuant to Article 31 of the Agreement, could be extended by consensus of the SCM Committee. Since no such consensus has been reached, the SCM agreement no longer recognises this category of subsidies. Article 31 of the SCM agreement has led to the expiry of these non-actionable subsidies listed in Article 8 of the WTO SCM Agreement

prohibited, it must be withdrawn immediately. Otherwise, the complaining country can take counter-measures, which may be in the form of charging extra duty (known as "countervailing duty") on subsidised imports. However, authorisation from the DSB is required for the appropriate counter-measures.

However, for non-prohibited actionable subsidies, a member country can initiate remedial measures only if it proves that a) there are subsidised imports from the other (subsidising) member country, b) there have adverse effects on the complaining country, and c) there is a causal link between the subsidised imports and the adverse effect. There can be three types of adverse effects. First, there can be injury to a domestic industry caused by subsidised imports in the territory of the complaining member. This can be the sole basis for imposing countervailing measures against the subsidised imports. Second, there is the issue of "serious prejudice". Serious prejudice usually arises as a result of the adverse effects of subsidies in the market of the subsidising member or in a third country market (e.g., export displacement). Thus, unlike injury, it can serve as the basis for a complaint related to harm to a member's export interests (Box 6.2 describes the criteria for determining serious prejudice). Finally, there is nullification or impairment of benefits accruing under the General Agreement on Trade and Tariffs (GATT), 1994. Nullification or impairment arises most typically where the improved market access presumed to flow from a bound tariff reduction is undercut by subsidisation.

Box 6.2: Criteria for Determining Serious Prejudice[35]

(SCM, Article 6)

In order to establish that serious prejudice has actually occurred, the complainant must demonstrate that the effect of the subsidy is:

(a) to displace or impede the imports of a like product of another Member into the market of the subsidizing Member;

(b) to displace or impede the exports of a like product of another Member from a third country market;

(c) a significant price undercutting by the subsidized product as compared with the price of a like product of another Member in the same market or significant price suppression, price depression or lost sales in the same market;

(d) an increase in the world market share of the subsidizing Member in a particular subsidized primary product or commodity17 as compared to the average share it had during the previous period of three years and this increase follows a consistent trend over a period when subsidies have been granted.

Source: Extracted from 6.3 pp. 234

Note: Article 6.1 of the serious prejudice clause has expired.

35 Source: https://www.wto.org/english/docs_e/legal_e/24-scm.pdf (accessed on 17 August 2018)

Under the SCM Agreement, broadly two types of remedies are possible against actionable subsidies. The affected country can conduct its own investigation to establish that subsidised imports are causing material injury to its industry. Once this is established and the procedural rules of the SCM Agreement regarding the initiation and conduct of countervailing investigations are properly followed, then the affected country can unilaterally impose a countervailing duty on subsidised imports that are found to be hurting domestic producers. Alternately, the country can use the WTO's dispute settlement procedure to seek the withdrawal of the subsidy or the removal of its adverse effects.

The WTO rules contain some "Special and Differential Treatment" for developing countries and LDCs. Article 27.2 of the SCM Agreement exempts LDCs and developing countries with per capita income of less than US$1,000 from the prohibition of export subsidies. The list of these countries is given in Annex VII of the SCM Agreement.[36] According to the WTO rules of 1995, the threshold was calculated in terms of current prices. However, concerns were raised that a country may cross the per capita income threshold of US$1,000 merely because of inflation. Hence, in the Doha Round, the WTO has adopted an alternate methodology that calculates the threshold in constant 1990 US$. Moreover, to graduate, a country must reach or cross the US$1,000 threshold (measured in terms of constant 1990 US$) for three consecutive years. Based on this criteria and notification issued by the Committee on Subsidies and Countervailing Measures dated July 11, 2017 (G/SCM/110/Add.14), India no longer qualifies for the "Special and Differential Treatment".

6.1 Recent Developments in the WTO

Earlier this year, the US raised objections to a number of "Export Related" subsidies given by India in a number of sectors including apparels. In their submission to the WTO dated March 19, 2018 (WT/DS541/1G/SCM/D119/1), the US asked for consultation with the Government of India with regard to export subsidy measures, specifically EOUs, MEIS, EPCG scheme, SEZs and duty free imports for exporters programme, which are used by the apparel industry. Some of these subsides are more widely used than others by specific industries; for example, the apparel industry is a frequent user of the MEIS *vis-à-vis* SEZs. As of February 2017, out of the 206 exporting SEZs, there were 7 SEZs in the textile/apparel/wool sector and a few apparel units were located in 21 multi-product SEZs.[37] Government data shows that a majority of the apparel exporting units are located outside SEZs. Discussion with the industry shows that India is a large and growing market for apparel. Hence, firms would like to cater to both the domestic and export markets. There are also well-developed clusters in this sector such as the Tirupur apparel cluster and Ludhiana knitwear cluster.

---

[36] The Annex VII countries are Bolivia, Cameroon, Congo, Côte d'Ivoire, Dominican Republic, Egypt, Ghana, Guatemala, Guyana, India, Indonesia, Kenya, Morocco, Nicaragua, Nigeria, Pakistan, Philippines, Senegal, Sri Lanka and Zimbabwe.

[37] Source: http://sezindia.nic.in/upload/uploadfiles/files/3StatewiseDistribution-SEZ.pdf (accessed on September 3, 2018)

The list of prohibited subsidies provided by India and some of their implications are presented in Table 6.1. The table shows that substantial amounts of subsidies are given by India, although the data does not show the amount used by the apparel and garment sector.

Table 6.1: List of Prohibited Subsidies Provided by India

Measure	Definition	Benefits Received by the Apparel Sector and /or the Implications
Export Promotion Capital Goods (EPCG) Scheme[38]	It allows import of capital goods at zero customs duty, subject to an export obligation equivalent to six times the duties, taxes and cess saved on capital goods, to be fulfilled in six years, reckoned from the date of issue of authorisation	During 2016-17, the total value of duties saved through the scheme amounted to INR 13,470.53 crore
Merchandise Exports from India Scheme (MEIS)[39]	The scheme is a type of export subsidy that provides 2-5 per cent duty credit scrips on the total value of the FOB exports (for the apparel sector, a reward of 4 per cent is available as duty scrips)	The incentives for two sub-sectors of textiles, i.e., readymade garments and made ups increased from 2 per cent to 4 per cent during 2015-16 to 2016-17, involving additional annual incentives of INR 2,743 crore. The total value of duty scrips granted through MEIS was INR 18116.80 crore in 2016-17
Export Oriented Units (EOUs)[40]	Under this scheme, units may sell goods up to 50 per cent of FOB value of exports, subject to fulfilment of positive NFE (net foreign exchange) to DTA (domestic tariff area), on payment of concessional duties	Exports during 2017-18 (up to September 20, 2017) from the EOUs were of the order of INR 36591.90 crore as compared to the export of INR 74771.89 crore during 2016-17
Special Economic Zones (SEZs)[41]	The SEZ policy (2000) sought to establish SEZs within the country, in which various units would be set up for the manufacture of goods and rendering of services. To instil confidence among investors, the Parliament passed the Special Economic Zones Act in May 2005 followed by the SEZ Rules in 2006	Total exports from the SEZs stood at INR 5,81,033 crore for the year 2017-18 as on March 31, 2018

Source: Compiled from multiple government websites

According to the US:

38 Source: http://dgftcom.nic.in/exim/2000/policy/chap-05.htm; http://www.commerce.gov.in/writereaddata/uploadedfile/MOC_636626711232248483_Annual%20Report%20%20%202017-18%20English.pdf (accessed on August 30, 2018)

39 Source: http://www.aepcindia.com/sites/default/files/pdfs/Public_Notice_42_English.pdf; http://www.commerce.gov.in/writereaddata/uploadedfile/MOC_636626711232248483_Annual%20Report%20%20%202017-18%20English.pdf (accessed on August 30, 2018)

40 Source: http://dgftcom.nic.in/exim/2000/policy/hbppol1/2009-2010/chap06.htmd; http://www.commerce.gov.in/writereaddata/uploadedfile/MOC_636626711232248483_Annual%20Report%20%20%202017-18%20English.pdf (accessed on August 30, 2018)

41 Source: http://sezindia.nic.in/upload/uploadfiles/files/SEZAct2005.pdf; http://sezindia.nic.in/upload/5b67f4c187566FACT-SHEET.pdf (accessed on August 30, 2018)

"India is subject to the obligations of Article 3.1(a) of the SCM agreement because India's gross national product per capita has reached US$1000 per annum. Through each program, as reflected in the instruments listed above, India provides subsidies contingent upon export performance. The measures appear to be inconsistent with article 3.1(a) of the SCM agreement, and India appears to have acted inconsistently with Article 3.2 of the SCM agreement." (WTO, 2018: pp.3)

In addition, the US had also raised concerns about the export performance certificate (EPC) scheme for import of certain inputs used in the garment industry under Notification No. 50/2017 – Customs (Ministry of Finance, Department of Revenue, June 30, 2017, Condition 28).[42]

Indian experts, apparel industry, and policy makers are aware that the export contingent schemes mentioned above are inconsistent with the WTO's SCM agreement. Due to this, the government has set up a committee to discuss ways to phase out existing subsidies and design new smart subsidies that are WTO compliant.

7. Designing WTO Compliant Subsidies

India can no longer give export-linked subsidies. In order to design an effective WTO compliant subsidy for the apparel sector that will help firms to export, it is important to understand the following:

(a) the kind of subsidies exporters prefer and the reason for the preference

(b) the benefits of the subsidies

(c) the apparel value chain and the costs incurred by firms in establishing a domestic *vis-à-vis* export value chain

(d) the kind of WTO-smart subsides that can be given to improve export competitiveness

(e) the total cost of redesigning the subsidy package

(f) whether subsidies are the only way to promote exports; if not, what other policy measures can help improve exports

Some of these are discussed in details below.

- ***What are the benefits of subsidies?***

In-depth meetings with industry representatives and discussions with the Apparel Export Promotion Council (AEPC) show that a majority of apparel exporters claim MEIS. This is

[42] Source: http://www.cbic.gov.in/resources//htdocs-cbec/customs/cs-act/notifications/notfns-2017/cs-tarr2017/cs50-2017.pdf;jsessionid=2737408DD5919E80874218B3835273DD (accessed on October 1, 2018)

largely because it is easy to claim. However, there is no evidence that MEIS has helped increase exports. Figure 3.1 shows that exports of apparels, which were US$17.1 billion in 2015, fell to US$16.9 billion in 2016. Moreover, during the fiscal year 2017-18, apparel exports declined by 3.8 per cent in dollar terms. MEIS may have helped to reduce the decline in exports, but this needs further investigation. Since a huge amount of government funds are allocated to subsidies, it is important to understand how the subsidies have benefitted the industry. Exports to markets such as Japan (with zero tariffs) have not increased after the implementation of MEIS, and this is a cause for concern.

Further, in total, around 60 different types of subsides are given by the central and state governments. It is, therefore, important to do a study to understand whether the industry uses all the subsidies, how they prioritise across different types of subsidies, how easy or difficult it is to claim the subsidies, and what the impact of the subsidies is. The discussion with AEPC members show that state governments often compete with each other to attract firms by giving better subsidy packages. This may lead to relocation of firms rather than investment in new businesses. For example, when the Indian state of Chhattisgarh started giving subsidies for employment promotion, some firms from states such as Karnataka relocated to Chhattisgarh.

To understand the reasons for firms to lobby for a subsidy and the impact of the subsidy on exports, data has to be collected at the firm level. The data should cover firm level issues such as lack of process digitalisation or technology adaptation and external issues such as high logistics costs that may adversely affect competitiveness. Accordingly, policies may be designed to improve the productivity and efficiency and subsidies may not be the right policy to achieve the goal of higher exports.

- ***Understanding the Cost Implication***

A production-linked subsidy for the apparel sector is actionable but not prohibited under the WTO's SCM agreement. If a production-linked subsidy is given, the importing country has to prove injury, which may not be easy, if the subsidy is carefully designed. However, if a production-linked subsidy is given, it may benefit domestic manufacturers more than exporters. According to the Annual Survey of Industries, conducted by the Ministry of Statistics and Programme Implementation (MOSPI), in 2014-15, around 22 per cent of apparels that were produced in the country were exported. Thus, if the government has to replace export-linked subsidies by production-linked subsidies, it may have severe implications for the budget.

To design a subsidy, it is important for the government to have detailed data and information on (a) total apparel production (volumes and value) in the country by firm size, location, employment generation, machinery and technology used, etc. (b) the kind of firms that are more likely to export (c) what proportion of the production of the firms are exported and (d) what kind of subsidies are being claimed by companies producing for exports. Once subsidies are given to the industry, it is important to collect data on its impact, i.e.-, whether or not it has been beneficial.

Further, one has to examine and understand the apparel value chain for the domestic market and exports, identify the different cost components within the value chains and examine which costs are likely to be incurred by exporters, compared to those catering only to the domestic market. This will enable the government to design customised support mechanisms that will help exporters more than those who are producing solely for the domestic market. For example, exports may require product traceability, which can be technology based. A carefully designed subsidy can support such software implementation. Similarly, exporters may have higher transportation and logistics costs, which can be subsidised. If the subsidy has to be targeted towards exports, then logistics infrastructure costs at ports and airports or cost of transportation by sea may be subsidised.

At present, it is difficult to design targeted subsidy packages due to the lack of data and information. The DGFT collects data on subsidies claimed by different companies under various schemes in Foreign Trade Policy 2015-20, including those claimed by apparel exporters. However, there are no studies available in the public domain that links production and exports to firm types and their subsidy claims. Since subsidies are a major cost to the government and impose a huge burden on taxpayers, it is important to know which types of subsidies are most likely to be used and understand the impact of the subsidy that is being given. Further subsidies should be replaced or phased out if they have not contributed to the purpose for which they have been designed.[43] In this regard, the government could provide assistance to strengthen the capacity of institutions like trade bodies and industry associations to improve the data collection process. Research can be commissioned to experts and academicians to evaluate and monitor schemes and examine the cost implications.

- ***Designing WTO Smart Subsidies – Lessons from Global Best Practices***

A number of developing countries including Vietnam and China give subsidies along with other fiscal and non-fiscal benefits to their apparel manufacturing firms to gain scale and for exports. Since export incentive schemes are no longer a viable policy option for India, the country needs to design "smart", alternative subsidies that cannot be challenged at the WTO in the future. The government may examine the subsidies adopted by other countries to design alternative subsidies. First, the government should remove the export contingency clause of the incentives given through the different schemes that have been challenged under the WTO's SCM Agreement and instead link subsidies to other performance indicators such as requirement of employment or investment in technology, which focuses on scale expansion and growth. Second, since the WTO is yet to develop a discipline on subsidies in services, services used in the apparel export supply chain can be subsidised, especially in view of the increasing use of services in apparel manufacturing.[44] Third, an argument for giving subsidies in India is the high cost and low ease of doing business. The government may focus on non-fiscal incentives that can help improve ease of doing business. Fourth, any sector-specific subsidy, even if it covers the domestic sector (in this case apparel sector), can

---

[43] Source: http://www.nipfp.org.in/media/pdf/books/BK_56/Chapters/1.%20Subsidies%20Concepts.pdf (accessed on August 29, 2018)

[44] For example, Miroudot (2017) pointed out that the share of services value added in manufacturing exports can be as high as 40 per cent for 'textiles and apparel'.

be countervailed under the WTO regime on account of its being a specific subsidy. In order to reduce the scope of challenge in the WTO, a subsidy ideally should not be sector specific. Last but the not the least, if a government institution such as DGFT gives the subsidy, it is presumed to be trade-linked. On the other hand, if the Ministry of Commerce and Industry gives the subsidy, unless otherwise specified, trade linkages have to be first established. Thus, there is need to have a relook at the institutional structure and how subsidies are given.

Some of these are discussed below with examples.

a) **Making the SEZ and EOU Policies WTO Compliant –** The Indian SEZ policy mentions a list of fiscal and non-fiscal incentives that are given to both developers and units located within an SEZ. To avail of these incentives, there is a mandatory requirement for units to be NFE[45] earners within a period of five years. This criterion puts forward an exclusive export contingent element, which is prohibited as per WTO's SCM agreement. Similarly, the EOUs also have an export contingent requirement, which makes them prohibited under the WTO's SCM agreement. The government needs to identify other performance indicators, which are not export-linked. Such indicators can be linked to investment, employment creation, technological up-gradation, high value-added manufacturing, etc. Vietnam, for example, has removed all export-linked subsidies given to industries once it entered WTO in 2007 (USTR, 2008). In the Republic of Korea, various subsidies (for land acquisition, construction, starting of business, etc.) are provided by the government to industries that employ highly advanced technology and invest in high value-added services (Mukherjee et al., 2016).

   Turkey does not provide any direct export subsidy or incentive but incentivises the apparel industry *via* investment promotion and value added tax (VAT) benefits for purchases for exports under the Inward Processing Regime. However, it must be noted that such benefits can still be "actionable" under the WTO law, but the importing country has to prove an injury. Nevertheless, if the policy is designed carefully, proving injury by the importing country/region is difficult.

b) **Re-orienting Subsidies towards Services –** WTO is yet to develop a discipline on subsidies in services, subsidies given to services fall outside any WTO discipline. In the light of the increased "servicification" of manufacturing, services used by the apparel industry can be subsidised (Pal and Mukherjee, 2018). China provides various service based incentives to SEZs including business planning, marketing, skill training and management services to enhance competitiveness and develop better supply and value chains (Zeng, 2010). The Indian government can provide support for market development, employee training, shelters for the workforce and employee transportation, to name a few. The Ministry of Commerce & Industry already runs two popular schemes for market access and market development namely Market Access Initiative and Market Development Assistance. Allocations under these schemes can be increased.

---

[45] The NFE is defined as the value of exports from a unit of an SEZ minus the value of total imports made by that unit of the SEZ.

India may look into the support provided through Vietnam's National Trade Promotion programme, which assists export marketing through trade fairs, exhibitions and sponsorships (Ministry of Textiles and Technopak, 2016). India could also learn from Turkey's "TURQUALITY" programme that provides subsidies for export-oriented players in export promotion. In addition to helping with market access and development, this scheme puts special focus on providing an umbrella branding for Turkish apparels and boosts export credibility through the TURQULAITY brand.[46]

c) **Address the High Logistics and Other Operating Costs –** One of the key issues that affects the competitiveness of the Indian apparel industry is high logistics costs. A reason for giving subsidies is to cushion these costs. There is need for a study to examine the reasons for the high logistics costs and offer targeted solutions. For example, if there are delays due to lack of co-ordination across different government agencies or between customs and port authorities, such delays have to be addressed. If the high cost of storage of consignments at ports is high, for instance, subsidies can be given to reduce the burden. The government may also subsidise the logistics cost of sending samples abroad. In China, power is highly subsidised, while Bangladesh has tried to ensure 24x7 quality power supply to the apparel SEZs (Mukherjee et al., 2016). Further, BIDA allows exemption of VAT on electricity or taxes on sale, of self-generated or purchased electric power for use within economic zones (for 10 years).[47] This reduces costs and helps the industry become competitive.

d) **Focus on Ease of Doing Business and Non-Fiscal Incentives** – Compared to other countries like the Republic of Korea, China, Vietnam and Bangladesh, non-fiscal incentives like single-window/fast-track clearances, simplified import-export procedures, land rent etc., are much lower in India (Mukherjee et al., 2016). Incentives given to foreign investors are lower in India and the cost of doing business is higher. For example, in Bangladesh, foreign firms located in free trade zones are allowed full repatriation of capital and dividend. Most apparel exporting countries allow foreign investment in retail, which enables retailers to establish a presence in the country and reduce sourcing costs. In India, the sourcing and supply chain is highly fragmented, which increases costs. In Bangladesh, BIDA allows the issue of project related work permits to foreign nationals and their employees (limited up to 5 per cent of total employees). In Bangladesh and the Republic of Korea, firms located in free trade zones are allowed to sub-contract with firms in the DTA and enjoy flexible labour laws.[48]

e) **Rationalisation of Import Duties** – The discussion with apparel manufacturing and exporting units shows that they import certain types of raw materials and machines. While those in export businesses are allowed duty free imports of machines, once imported the machines are used for both domestic production and exports, except in the case of EOUs and units located in SEZs. The import duties are often imposed to protect

---

46 Source: https://www.pwc.com.tr/en/turquality (accessed on August 30, 2018)
47 Source: http://bida.gov.bd/incentives (accessed on September 4, 2018)
48 Source: http://bida.gov.bd/incentives (accessed on September 4, 2018)

domestic industry in segments such as textiles and textile machinery production. However, it adversely affects the competitiveness of the apparel manufacturing sector and this is one of the reasons why value addition in India is low [Organisation for Economic Co-operation and Development (OECD), 2010]. Studies have shown that China is the largest machine manufacturer for the garment/apparel sector. Countries such as Bangladesh and Vietnam have imposed zero import duty for machinery and equipment imports (Ministry of Textiles and Technopak, 2018). In India, after the introduction of GST, the import duties for machines have been reduced, but not eliminated. It is important to do a detailed study on the costs and benefits of the removal of import duty on machines. If the benefits outweigh the costs, the government should lower or remove import duties.

f) **Subsidies for Technology Up-gradation –** Any kind of support for technology up-gradation across all industries is usually non-actionable under the WTO's SCM Agreement. However, if it is industry specific, as in the case of the TUFS initiative of the Ministry of Textiles, it can be questioned. One way to provide subsidy for technological upgradation is to give it through a ministry, which is not sector specific, for example through Ministry of Commerce and Industry. Doing so would mean that the subsidy is no longer specific to the textile and apparel industry and hence, cannot be objected to at the WTO. As mentioned in section 5, procedural delays in availing of ATUFS are a major reason for its underutilisation. There is a need for the government to interact with the AEPC and other industry bodies, and come up with alternatives to encourage procedural simplicity. Specifically, the inspection process has to be fast tracked. This will lead to an increase in the utilisation of the scheme by the industry. In this regard, India can look into other countries' practices and models and how they have made their schemes WTO compliant. For example, in Vietnam, support for the upgradation of technology or production safety and design is channelised through the Chamber of Commerce,[49] which means that the scheme is not industry specific. A study by the Ministry of Textiles and Technopak (2018), suggested that the scope of the TUFS can be broadened to include enterprise resource planning software to ensure efficient process management on the production floor. The meetings highlighted that subsidies can be given to companies to adopt digital supply chain management and to implement technology such as block chains for product traceability. However, to be eligible for subsidies, a company should demonstrate willingness to upgrade technology and there should be a mechanism in place to ensure that the company has adopted the technology.

g) **Subsidies for Skill Development –** Subsides given for skill development in any industry is non-actionable and therefore, any relevant central or state government ministry/department can provide these. Since existing studies have highlighted that India needs skilled workforce (see Section 5), subsidies for skill up-gradation have the potential to boost productivity and efficiency in the apparel sector and enable the sector to meet international standards. Specifically, the government may subsidise courses and training

49 Source: http://unpan1.un.org/intradoc/groups/public/documents/un-dpadm/unpan041935.pdf (accessed on August 30, 2018)

programmes for the use of information and communication technology (ICT) in garment manufacturing and those related to robotics/pneumatics for garment manufacturing (Ministry of Textiles and Technopak, 2018). As is happening in Turkey (see Section 5), the government can also partner with global retailers and their sourcing agents to provide skill training in garment manufacturing clusters in India to suit the requirements of these players. There is also a need to link the Industrial Training Institutes (ITIs) with the industry and opportunities can be created for ITI students to be part of an "Earn as you Learn" programme, in which the students work in an industry as part of their course curriculum and gain industry experience.

8. Conclusions and Way Forward

To enhance exports of apparel from India and to improve the competitiveness of the firms in this sector, there is need for a holistic policy approach. Autonomous tariff liberalisations, trade agreements, fiscal and non-fiscal incentives given to industry are key components of the trade policy and if designed properly they can help enhance exports and export competitiveness. India has a large export surplus in apparel and enjoys export competitiveness in a number of sub-sectors. However, of late, there have been concerns with respect to (a) stagnating export growth (b) the country's inability to increase exports after tariff reduction through bilateral trade agreements with countries such as Japan (c) likely increase in imports without increase in exports if tariffs are lowered under trade agreements such as the RCEP and (d) phasing out of WTO prohibited subsidies. All these may adversely affect exports unless the Government of India comes out with the right policy measures and the industry focuses on digitalisation, better supply management, automation, R&D, scale and skill upgradation.

This paper pointed out that government support should focus on making the industry competitive. It also highlighted that the competitiveness of the industry is affected adversely by various factors, some of which are internal to the firms, and subsidy can only help to cushion some of these factors. The analysis also shows that subsidy may not have led to an increase in exports or enhanced firms' competitiveness. It is, therefore, important to evaluate the impact of the subsidies carefully since around 60 subsidies are given to this sector by the central and state governments. and yet exports have not shown any significant growth.

Further, instead of giving subsidies, it may be a better option to (a) use non-fiscal measures to reduce the cost of doing business (b) reduce the corporate tax to around 25 per cent as most competing countries have lower taxes, and (c) remove the cesses. This will reduce the requirement for a subsidy. Moreover, industry pointed out that if there are no scale restrictions in corporate tax rates and in allocation of benefits, it will encourage them to scale up quickly. They also pointed out that without scaling up they cannot compete globally.

Overall, the study recommends that the focus of government policy and incentives should be on scale upgradation, skill development, technology adaptation, reduction of logistics and input costs and an improvement in the ease of doing business. The apparel industry should be encouraged through right policy and support mechanisms to invest in technology and R&D,

improve quality standards, use information technology and better processes to improve production efficiencies and move into high-value manufacturing and integrated production processes. These can be used as performance indicators for giving subsidies.

The experiences of other countries show that industry associations and export promotion bodies play a proactive role in helping the government to design the right policy package that enables the industry to become globally competitive. They regularly conduct studies on export performance, the impact of trade agreements, value chain analyses, and the impact of subsidies and targeted benefits. In a number of countries including Vietnam and Turkey, industry bodies play a pivotal role in helping the government design subsidies and initiate digital processes and trade facilitation measures. The AEPC in India can play a pivotal role, learning from these best practices. In India, academic-industry linkages are weak and most of the incentives and policies are not backed by academic research. There is need for research in this area, which can be used for industry consultations and for designing the right policy instruments.

References

Aggarwal, A. (2005). Performance of Export processing Zones: A Comparative Analysis of India, Sri Lanka and Bangladesh. *ICRIER Working Paper no. 155.* Available at http://icrier.org/pdf/wp155.pdf (accessed on August 9, 2018)

Aggarwal, A., Hoppe, M. and Walkenhorst, P. (2008). Special Economic Zones in South Asia: Industrial Islands or Vehicles for Diversification?.*World Bank Publications.* Available at http://siteresources.worldbank.org/INTEXPCOMNET/Resources/Walkenhorst,_Special_Economic_Zones_in_South_Asia_Industrial_Islands_or_Vehicles_for_Diversification.pdf (accessed on August 28, 2018)

Arvis, J.F., Ojala L., Wiederer, C., Shepherd, B., Raj, A., Dairabayeva, K. and Kiiski, T. (2018). Connecting to Compete 2018: Trade Logistics in the Global Economy. *The International Bank for Reconstruction and Development, The World Bank, pp. 40-43.* Available at https://openknowledge.worldbank.org/bitstream/handle/10986/29971/LPI2018.pdf (accessed on September 7, 2018)

Arvis, J.F., Salvasky, D., Ojala L., Shepherd, B., Busch, C., Raj, A. and Naula, T. (2016). Connecting to Compete 2016: Trade Logistics in the Global Economy. *The International Bank for Reconstruction and Development, The World Bank, pp. 38-41.* Available at https://wb-lpi-media.s3.amazonaws.com/LPI_Report_2016.pdf (accessed on September 7, 2018)

Axis Direct (2017). Global Textile Report. Available at https://simplehai.axisdirect.in/app/index.php/insights/reports/downloadReport/file/Thematic+Report+on+Textile+-+Axis+Direct+-+11012017_16-01-2017_09.pdf/type/fundamental (accessed on September 27, 2018)

Balassa, B. (1965). Trade Liberalization and Revealed Comparative Advantage. *Manchester School of Economic and Social Studies, 33, pp. 99–123.* Available at https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1467-9957.1965.tb00050.x (accessed on August 23, 2018)

Bhagwat, S., Kumar, A. and Kashyap, A.K. (2018). Assessing the Significance and Measuring the Dynamism of Apparel Retailing in India's Evolving Organised Retail Sector. *ZENITH International Journal of Business Economics & Management Research, 8 (5), pp. 64-72.* Available at http://www.indianjournals.com/ijor.aspx?target=ijor:zijbemr&volume=8&issue=5&article=007 (accessed on August 6, 2018)

Brenton, P. and Hoppe, M. (2007). Clothing and Export Diversification: Still a Route to Growth for Low-Income Countries?. *Policy Research Working Paper 4343, Poverty Reduction and Economic Management Network, The World Bank.* Available at https://openknowledge.worldbank.org/bitstream/handle/10986/7334/wps4343.pdf?sequence=1&isAllowed=y (accessed on August 10, 2018)

Brown, A. G. and Stern, R.M. (2011). Free Trade Agreements and Governance of the Global Trading System. *Working Paper 614, Research Seminar in International Economics, University of Michigan.* Available at https://deepblue.lib.umich.edu/bitstream/handle/2027.42/98827/j.1467-9701.2011.01333.x.pdf?sequence=1&isAllowed=y (accessed on August 10, 2018)

Chi, D.Q. (2016). Vietnam Country Study-Labour Standards in the Garment Supply Chain. *CNV International, Utrecht, The Netherlands*. Available at https://www.cnvinternationaal.nl/_Resources/Persistent/c693cde01921991a984c192d70c887f75412dcdc/CNV-Vietnam-Garment-Supply-Chain-web%20clickable%20ENG%20DEF.pdf (accessed on July 13, 2018)

Emma, M. (2018). A developing economy as a part of global value chain: The apparel industry and poverty reduction in Nicaragua. *Turku School of Economics, University of Turku.* Available at http://www.utupub.fi/bitstream/handle/10024/145148/Mikkil%C3%A4%20Emma.pdf?sequence=1&isAllowed=y (accessed on August 6, 2018)

European Commission (EC). (2018). Report on the Generalised Scheme of Preferences covering the period 2016-2017. *Report from the Commission to the European Parliament and the Council.* Available at http://trade.ec.europa.eu/doclib/docs/2018/january/tradoc_156536.pdf (accessed on September 6, 2018)

Evgeniev, E. and Gereffi, G. (2008). Textile and Apparel Firms in Turkey and Bulgaria: Exports, Local Upgrading and Dependency. *Economic Studies Journal, Issue 3, pp. 148-179.* Available at https://www.researchgate.net/publication/24109022/download (accessed on August 9, 2018)

Farole, T. and Akinci, G. (2011). Special Economic Zones: Progress, Emerging Challenges and Future Directions. *Directions in Development, Trade, World Bank.* Available at https://openknowledge.worldbank.org/bitstream/handle/10986/2341/638440PUB0Exto00Box0361527B0PUBLIC0.pdf (accessed on August 28, 2018)

Fernandez-Stark, K., Frederick, S. and Gereffi, G. (2011). The Apparel Global Value Chain: Economic Upgrading and Workforce Development. *Global Value Chains Centre, Duke University.* Available at http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.233.1379&rep=rep1&type=pdf (accessed on August 28, 2018)

Goto, K. (2012). Is the Vietnamese Garment Industry at a Turning Point? Upgrading from the Export to the Domestic Market. Institute of Developing Economies, Japan External Trade Organization, Discussion paper No. 373. Available at http://www.ide.go.jp/English/Publish/Download/Dp/373.html (accessed on August 10, 2018)

Hayashi, M. (2007). Trade in Textiles and Clothing: Assuring Development Gains in a Rapidly Changing Environment. *UNCTAD Series on Assuring Development Gains* *from the International Trading System and Trade Negotiations, New York and Geneva*. Available at http://unctad.org/en/Docs/ditctncd20069_en.pdf (accessed on August 10, 2018)

Hoda, A. and Ahuja, R. (2003). Agreement on Subsidies and Countervailing Measures: Need for Clarification and Improvement. *ICRIER Working Paper No. 101*. Available at http://icrier.org/pdf/WP101.pdf (accessed on September 4, 2018)

Horn, H., Petros, C., Mavroidis and Sapir, A. (2010). Beyond the WTO? An Anatomy of EU and US Preferential Trade Agreements. *Bruegel Blueprint Series, Volume VII.* Available at http://bruegel.org/wp-content/uploads/imported/publications/bp_trade_jan09.pdf (accessed on August 10, 2018)

Krueger, A.O. (1997). Trade Policy and Economic Development: How We Learn. *National Bureau of Economic Research, 87 (1), pp. 1-22.* Available at http://www.nber.org/papers/w5896 (accessed on August 10, 2018)

Lopez-Acevedo, G. and Robertson, R. (2016). Stitches to Riches? Apparel Employment, Trade, and Economic Development in South Asia. *World Bank Group Publication*. Available at http://documents.worldbank.org/curated/en/299231467988907350/Stitches-to-riches-apparel-employment-trade-and-economic-development-in-South-Asia (accessed on August 6, 2018)

Minian, I., Martinez, A. and Ibanez, J. (2016). Technological Change and the Relocation of the Apparel Industry. *RevistaLatinoamericana de Economia, 48 (188), January-March 2017*. Available at https://probdes.iiec.unam.mx/en/revistas/v48n188/body/v48n188a6_1.php (accessed on August 13, 2018)

Ministry of Textiles and Technopak. (2016). Study on Enhancing Export Competitiveness in Textile Sector. Available at http://texmin.nic.in/sites/default/files/Enhancing_Export_Competitiveness_Textile_Sector_03042018.pdf (accessed on August 28, 2018)

Ministry of Textiles and Technopak. (2018). Study on Garment Sector to understand their Requirement for Capacity Building. Available at http://texmin.nic.in/sites/default/files/Garment%20Study%20-%20Annexures%20-%2026.02.2018.pdf (accessed on August 6, 2018)

Miroudot, S. (2017). The Servicification of Global Value Chains: Evidence and Policy Implications. *UNCTAD Multi-year Expert Meeting on Trade, Services and Development, Geneva.* Available at https://unctad.org/meetings/en/Presentation/c1mem5_2017_124_S3_Miroudot_2.pdf (accessed on October 10, 2018)

Moazzem, K.G. and Sehrin, F. (2016). Economic Upgrading in Bangladesh's Apparel Value Chain during the Post-MFA Period. *South Asia Economic Journal, Institute of Policy Studies of Sri Lanka, 17 (1), pp. 73-93.* Available at http://journals.sagepub.com/doi/abs/10.1177/1391561415621824 (accessed on August 9, 2018)

Modi, K. and Bhagchandani, V. (2016). Indian Apparel Sector: Government Policies Drive the Growth. *Credit Analysis and Research Limited, CARE Ratings, Mumbai, India*. Available at http://www.careratings.com/upload/NewsFiles/SplAnalysis/Indian%20Apparel%20Sector.pdf (accessed on August 6, 2018)

Mukherjee, A., Pal, P., Deb, S., Ray, S. and Goyal, T. M. (2016). Special Economic Zones in India: Status, Issues and Potential. *Springer India.* Available at https://www.springer.com/in/book/9788132228042 (accessed on August 28, 2018)

Organisation for Economic Co-operation and Development (OECD). (2010). How Imports Improve Productivity and Competitiveness. Available at http://www.oecd.org/trade/45293596.pdf (accessed on September 6, 2018)

Pal, P. and Mukherjee, A. (2018). Special Economic Zones Face the WTO Test. *Economic & Political Weekly, 53 (33).* Available at https://www.epw.in/journal/2018/33/commentary/special-economic-zones-face-wto-test.html (accessed on September 2, 2018)

Pfohl, H.C. and Shen, X. (2008). Apparel Supply Chain between Europe and China. *Working Paper No. 31, Chair of Management & Logistics, TechnischeUniversität Darmstadt.* Available at http://www.scnm.tu-darmstadt.de/media/bwl2/download/aktuelledownloads/20081118apparelsupplychainleserprobe.pdf (accessed on August 9, 2018)

Rastogi, V. (2017). Cambodia's Garment Manufacturing Industry. *ASEAN Briefing*. Available at https://www.aseanbriefing.com/news/2017/11/08/cambodias-garment-manufacturing-industry.html (accessed on September 6, 2018)

Ray, S. and Miglani, S. (2018). Global Value Chains and the Missing Links. *Routledge India, London*. Available at https://www.routledge.com/Global-Value-Chains-and-the-Missing-Links-Cases-from-Indian-Industry/Ray-Miglani/p/book/9780429469855 (accessed on August 10, 2018)

Roy, S. (2010). Garments Industry: Some Reflections on Size Distribution of Firms. *Working Paper, Institute for Human Development, No.5*. Available at http://www.ihdindia.org/Formal-and-Informal-Employment/Paper-5-Garment-Industry-in-India-Some-Reflections-on-Size-Distribution-of-Firms.pdf (accessed on October 10, 2018)

Saggi, K., Stoyanov, A. and Yildiz, H.M. (2018). Do Free Trade Agreements Affect Tariffs of Non-member Countries? A Theoretical and Empirical Investigation. *American Economic Journal: Applied Economics, 10 (3), pp. 128-170.* Available at https://pubs.aeaweb.org/doi/pdfplus/10.1257/app.20150360 (accessed on August 10, 2018)

Staritz, C. and Morris, M. (2013). Local Embeddedness and Economic and Social Upgrading in Madagascar's Export Apparel Industry. *Capturing the Gains Working Paper 21.* Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2237506 (accessed on August 6, 2018)

Tran, A. N. (2012). Vietnamese Textile and Garment Industry in the Global Supply Chain: State Strategies and Workers' Responses. *Institutions and Economies, 4 (3), pp. 123-150.* Available at https://ijie.um.edu.my/index.php/ijie/article/view/4866 (accessed on August 28, 2018)

United Nations Conference on Trade and Development (UNCTAD). (2015). Tracing the Value Added in Global Value Chains: Product-Level Case Studies in China. Available at http://unctad.org/en/PublicationsLibrary/ditctncd2015d1_en.pdf (accessed on August 28, 2018)

United States Trade Representative (USTR). (2008). Foreign Trade Barriers, Vietnam. Available at https://ustr.gov/archive/assets/Document_Library/Reports_Publications/2008/2008_NTE_Report/asset_upload_file517_14617.pdf (accessed on September 6, 2018)

Varukolu, V. (2007). Technology Adoption of Indian Garment Manufacturing Firms. *LSU Master's Thesis 3605.* Available at https://digitalcommons.lsu.edu/cgi/viewcontent.cgi?article=4604&context=gradschool_theses (accessed on August 27, 2018)

Wazir Advisors (2017). Annual Report on Indian Textile and Apparel Industry. Available at http://wazir.in/pdf/Annual%20Report%20on%20Indian%20Textile%20and%20Apparel%20Industry%20(2016-17).pdf (accessed on July 30, 2018)

World Trade Organization (WTO). (2018). India-Export Related Measures. WT/DS541/5. Available at https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds541_e.htm (accessed on September 6, 2018)

Yannikaya, H. (2003). Trade Openness and Economic Growth: A Cross-Country Empirical Investigation. *Journal of Development Economics, Elsevier, 72 (1), pp. 57-89.* Available at https://www.sciencedirect.com/science/article/pii/S0304387803000683 (accessed on August 10, 2018)

Zeng, D.Z. (2010). Building Engines for Growth and Competitiveness in China: Experience with Special Economic Zones and Industrial Clusters. *Directions in Development, World Bank.* Available at https://openknowledge.worldbank.org/handle/10986/2501 (accessed on September 4, 2018)

Appendix

Table A.1: Concordance Table for 4-Digit and 6-Digit HS Classification: Apparels

HS Codes (4-digit)	HS Codes (6-digit)	Product Description
61.01		**Men's or boys' overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind-jackets and similar articles, knitted or crocheted, other than those of heading 61.03**
	6101.20	- Of cotton
	6101.30	- Of man-made fibres
	6101.90	- Of other textile materials
61.02		**Women's or girls' overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind- jackets and similar articles, knitted or crocheted, other than those of heading 61.04.**
	6102.10	- Of wool or fine animal hair
	6102.20	- Of cotton
	6102.30	- Of man-made fibres
	6102.90	- Of other textile materials
61.03		**Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (other than swimwear), knitted or crocheted.**
	6103.10	- Suits - Ensembles
	6103.22	- Of cotton
	6103.23	- Of synthetic fibres
	6103.29	- Of other textile materials
		- Jackets and blazers
	6103.31	- Of wool or fine animal hair
	6103.32	- Of cotton
	6103.33	- Of synthetic fibres
	6103.39	- Of other textile materials - Trousers, bib and brace overalls, breeches and shorts
	6103.41	- Of wool or fine animal hair
	6103.42	- Of cotton
	6103.43	- Of synthetic fibres
	6103.49	- Of other textile materials
61.04		**Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (other than swimwear), knitted or crocheted.**
		- Suits
	6104.13	- Of synthetic fibres
	6104.19	- Of other textile materials
		- Ensembles
	6104.22	- Of cotton
	6104.23	- Of synthetic fibres
	6104.29	- Of other textile materials
		- Jackets and blazers
	6104.31	- Of wool or fine animal hair
	6104.32	- Of cotton
	6104.33	- Of synthetic fibres
	6104.39	- Of other textile materials
		- Dresses
	6104.41	- Of wool or fine animal hair
	6104.42	- Of cotton
	6104.43	- Of synthetic fibres
	6104.44	- Of artificial fibres
	6104.49	- Of other textile materials

		- Skirts and divided skirts
	6104.51	- Of wool or fine animal hair
	6104.52	- Of cotton
	6104.53	- Of synthetic fibres
	6104.59	- Of other textile materials
		- Trousers, bib and brace overalls, breeches and shorts
	6104.61	- Of wool or fine animal hair
	6104.62	- Of cotton
	6104.63	- Of synthetic fibres
	6104.69	- Of other textile materials
61.05		**Men's or boys' shirts, knitted or crocheted.**
	6105.10	- Of cotton
	6105.20	- Of man-made fibres
	6105.90	- Of other textile materials
61.06		**Women's or girls' blouses, shirts and shirt-blouses, knitted or Crocheted.**
	6106.10	- Of cotton
	6106.20	- Of man-made fibres
	6106.90	- Of other textile materials
61.07		**Men's or boys' underpants, briefs, nightshirts, pyjamas, bathrobes, dressing gowns and similar articles, knitted or crocheted.**
		- Underpants and briefs
	6107.11	- Of cotton
	6107.12	- Of man-made fibres
	6107.19	- Of other textile materials
		- Nightshirts and pyjamas
	6107.21	
	6107.22	- Of man-made fibres
	6107.29	- Of other textile materials
		- Other
	6107.91	- Of cotton
	6107.99	Of other textile materials
61.08		**Women's or girls' slips, petticoats, briefs, panties, nightdresses, pyjamas, negligees, bathrobes, dressing gowns and similar articles, knitted or crocheted.**
		- Slips and petticoats
	6108.11	- Of man-made fibres
	6108.19	- Of other textile materials
		-Briefs and panties
	6108.21	- Of cotton
	6108.22	- Of man-made fibres
	6108.29	- Of other textile materials
		- Nightdresses and pyjamas
	6108.31	- Of cotton
	6108.32	- Of man-made fibres
	6108.39	- Of other textile materials
		- Other
	6108.91	- Of cotton
	6108.92	- Of man-made fibres
	6108.99	- Of other textile materials
61.09		**T-shirts, singlets and other vests, knitted or crocheted.**
	6109.10	- Of cotton
	6109.90	- Of other textile materials
61.10		**Jerseys, pullovers, cardigans, waistcoats and similar articles, knitted or crocheted.**
		- Of wool or fine animal hair
	6110.11	- Of wool
	6110.12	- Of Kashmir (cashmere) goats

	6110.19	- Other
	6110.20	- Of cotton
	6110.30	- Of man-made fibres
	6110.90	- Of other textile materials
61.11		**Babies' garments and clothing accessories, knitted or crocheted.**
	6111.20	- Of cotton
	6111.30	- Of synthetic fibres
	6111.90	- Of other textile materials
61.12		**Track suits, ski suits and swimwear, knitted or crocheted.**
		-Track suits
	6112.11	- Of cotton
	6112.12	- Of synthetic fibres
	6112.19	- Of other textile materials
	6112.20	- Ski suits
		-Men's or boys' swimwear
	6112.31	- Of synthetic fibres
	6112.39	- Of other textile materials
		- Women's or girls' swimwear
	6112.41	- Of synthetic fibres
	6112.49	- Of other textile materials
61.13	6113.00	**Garments, made up of knitted or crocheted fabrics of heading 59.03, 59.06 or 59.07.**
61.14		**Other garments, knitted or crocheted.**
	6114.20	- Of cotton
	6114.30	- Of man-made fibres
	6114.90	- Of other textile materials
61.15		**Panty hose, tights, stockings, socks and other hosiery, including graduated compression hosiery (for example, stockings for varicose veins) and footwear without applied soles, knitted or crocheted.**
	6115.10	- Graduated compression hosiery (for example, stockings for varicose veins)
		- Other panty hose and tights
	6115.21	- Of synthetic fibres, measuring per single yarn less than 67 decitex
	6115.22	- Of synthetic fibres, measuring per single yarn 67 decitex or more
	6115.29	- Of other textile materials
	6115.30	- Other women's full-length or knee-length hosiery, measuring per single yarn less than 67 decitex
		- Other
	6115.94	- Of wool or fine animal hair
	6115.95	- Of cotton
	6115.96	- Of synthetic fibres
	6115.99	- Of other textile materials
61.16		**Gloves, mittens and mitts, knitted or crocheted**
	6116.10	-Impregnated, coated or covered with plastics or rubber
		- Other
	6116.91	- Of wool or fine animal hair
	6116.92	- Of cotton
	6116.93	- Of synthetic fibres
	6116.99	- Of other textile materials
61.17		**Other made up clothing accessories, knitted or crocheted; knitted or crocheted parts of garments or of clothing accessories**
	6117.10	- Shawls, scarves, mufflers, mantillas, veils and the like
	6117.80	- Other accessories
	6117.90	- Parts
62.01		**Men's or boys' overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind-jackets and similar articles, other than those of heading 62.03.**
		- Overcoats, raincoats, car-coats, capes, cloaks and similar articles

	6201.11	- Of wool or fine animal hair
	6201.12	- Of cotton
	6201.13	- Of man-made fibres
	6201.19	- Of other textile materials
		- Other
	6201.91	- Of wool or fine animal hair
	6201.92	- Of cotton
	6201.93	- Of man-made fibres
	6201.99	- Of other textile materials
62.02		**Women's or girls' overcoats, car-coats, capes, cloaks, anoraks (including ski-jackets), wind-cheaters, wind-jackets and similar articles, other than those of heading 62.04.**
		- Overcoats, raincoats, car-coats, capes, cloaks and similar articles
	6202.11	- Of wool or fine animal hair
	6202.12	- Of cotton
	6202.13	- Of man-made fibres
	6202.19	- Of other textile materials
		- Other
	6202.91	- Of wool or fine animal hair
	6202.92	- Of cotton
	6202.93	- Of man-made fibres
	6202.99	- Of other textile materials
62.03		**Men's or boys' suits, ensembles, jackets, blazers, trousers, bib and brace overalls, breeches and shorts (other than swimwear).**
		- Suits
	6203.11	Of wool or fine animal hair
	6203.12	Of synthetic fibres
	6203.19	Of other textile materials
		Ensembles :
	6203.22	Of cotton
	6203.23	Of synthetic fibres
	6203.29	Of other textile materials
		Jackets and blazers :
	6203.31	Of wool or fine animal hair
	6203.32	Of cotton
	6203.33	Of synthetic fibres
	6203.39	Of other textile materials
		Trousers, bib and brace overalls, breeches and shorts :
	6203.41	Of wool or fine animal hair
	6203.42	Of cotton
	6203.43	Of synthetic fibres
	6203.49	Of other textile materials
62.04		**Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts, divided skirts, trousers, bib and brace overalls, breeches and shorts (other than swimwear).**
		- Suits
	6204.11	- Of wool or fine animal hair
	6204.12	-Of cotton
	6204.13	-Of synthetic fibres
	6204.19	-Of other textile materials
		- Ensembles
	6204.21	-Of wool or fine animal hair
	6204.22	-Of cotton
	6204.23	-Of synthetic fibres
	6204.29	-Of other textile materials
		-Jackets and blazers
	6204.31	-Of wool or fine animal hair
	6204.32	-Of cotton

	6204.33	-Of synthetic fibres
	6204.39	-Of other textile materials
		-Dresses
	6204.41	-Of wool or fine animal hair
	6204.42	-Of cotton
	6204.43	-Of synthetic fibres
	6204.44	-Of artificial fibres
	6204.49	-Of other textile materials
		-Skirts and divided skirts
	6204.51	-Of wool or fine animal hair
	6204.52	-Of cotton
	6204.53	-Of synthetic fibres
	6204.59	-Of other textile materials
		-Trousers, bib and brace overalls, breeches and shorts
	6204.61	-Of wool or fine animal hair
	6204.62	-Of cotton
	6204.63	-Of synthetic fibres
	6204.69	-Of other textile materials
62.05		**Men's or boys' shirts.**
	6205.20	-Of cotton
	6205.30	-Of man-made fibres
	6205.90	-Of other textile materials
62.06		**Women's or girls' blouses, shirts and shirt-blouses.**
	6206.10	-Of silk or silk waste
	6206.20	-Of wool or fine animal hair
	6206.30	-Of cotton
	6206.40	-Of man-made fibres
	6206.90	-Of other textile materials
62.07		**Men's or boys' singlets and other vests, underpants, briefs, nightshirts, pyjamas, bathrobes, dressing gowns and similar articles**
		-Underpants and briefs
	6207.11	-Of cotton
	6207.19	-Of other textile materials
		-Nightshirts and pyjamas
	6207.21	-Of cotton
	6207.22	-Of man-made fibres
	6207.29	-Of other textile materials
		-Other
	6207.91	-Of cotton
	6207.99	-Of other textile materials
62.08		**Women's or girls' singlets and other vests, slips, petticoats, briefs, panties, nightdresses, pyjamas, negligees, bathrobes, dressing gowns and similar articles**
		-Slips and petticoats
	6208.11	-Of man-made fibres
	6208.19	-Of other textile materials
	-	-Nightdresses and pyjamas
	6208.21	-Of cotton
	6208.22	-Of man-made fibres
	6208.29	-Of other textile materials
		-Other
	6208.91	-Of cotton
	6208.92	-Of man-made fibres
	6208.99	-Of other textile materials
62.09		**Babies' garments and clothing accessories.**
	6209.20	-Of cotton
	6209.30	-Of synthetic
	6209.90	-Of other textile materials

62.10		**Garments, made up of fabrics of heading 56.02, 56.03, 59.03, 59.06 or 59.07.**
	6210.10	-Of fabrics of heading 56.02 or 56.03
	6210.20	-Other garments, of the type described in subheadings 6201.11 to 6201.19
	6210.30	-Other garments, of the type described in subheadings 6202.11 to 6202.19
	6210.40	-Other men's or boys' garment
	6210.50	-Other women's or girls' garments
62.11		**Track suits, ski suits and swimwear; other garments.**
		-Swimwear
	6211.11	-Men's or boys'
	6211.12	-Women's or girls'
	6211.20	-Ski suits
		-Other garments, men's or boys'
	6211.32	-Of cotton
	6211.33	-Of man-made fibres
	6211.39	-Of other textile materials
		-Other garments, women's or girls
	6211.42	-Of cotton
	6211.43	-Of man-made fibres
	6211.49	-Of other textile materials
62.12		**Brassieres, girdles, corsets, braces, suspenders, garters and similar articles and parts thereof, whether or not knitted or crocheted.**
	6212.10	- Brassieres
	6212.20	- Girdles and panty-girdles
	6212.30	- Corsets
	6212.90	- Other
62.13		**Handkerchiefs.**
	6213.20	- Of cotton
	6213.90	- Of other textile materials
62.14		**Shawls, scarves, mufflers, mantillas, veils and the like**
	6214.10	- Of silk or silk waste
	6214.20	- Of wool or fine animal hair
	6214.30	- Of synthetic fibres
	6214.40	- Of artificial fibres
	6214.90	- Of other textile materials
62.15		**Ties, bow ties and cravats.**
	6215.10	- Of silk or silk waste
	6215.20	- Of man-made fibres
	6215.90	- Of other textile material
62.16	6216.00	**Gloves, mittens and mitts.**
62.17		**Other made up clothing accessories; parts of garments or of clothing accessories, other than those of heading 62.12.**
	6217.10	- Accessories
	6217.90	- Parts

LATEST ICRIER'S WORKING PAPERS

NO.	TITLE	AUTHOR	YEAR
364	SKILL MISMATCH AND RETURNS TO EDUCATION IN MANUFACTURING: A CASE OF INDIA'S TEXTILE AND CLOTHING INDUSTRY	PRATEEK KUKREJA	SEPTEMBER 2018
363	EMERGING TRENDS IN INDIA-PAKISTAN TRADE	NISHA TANEJA SAMRIDHI BIMAL VARSHA SIVARAM	AUGUST 2018
362	HIGH-SKILLED LABOUR MOBILITY IN AN ERA OF PROTECTIONISM: FOREIGN STARTUPS AND INDIA	ARPITA MUKHERJEE AVANTIKA KAPOOR ANGANA PARASHAR SARMA	JULY 2018
361	LAND USE AND LAND ACQUISITION LAWS IN INDIA	ANWARUL HODA	JULY 2018
360	UPGRADING IN THE INDIAN AUTOMOBILE SECTOR: THE ROLE OF LEAD FIRMS	SAON RAY SMITA MIGLANI	JUNE 2018
359	THE ROLE OF WATERWAYS IN PROMOTING URBAN RESILIENCE: THE CASE OF KOCHI CITY	ZEBA AZIZ INDRO RAY SANDEEP PAUL	MAY 2018
358	TOWARDS SUSTAINABLE, PRODUCTIVE AND PROFITABLE AGRICULTURE: CASE OF RICE AND SUGARCANE	ASHOK GULATI GAYATHRI MOHAN	APRIL 2018
357	SUPPORTING INDIAN FARMERS: PRICE SUPPORT OR DIRECT INCOME/INVESTMENT SUPPORT?	ASHOK GULATI TIRTHA CHATTERJEE SIRAJ HUSSAIN	APRIL 2018
356	SOLID WASTE MANAGEMENT IN INDIA AN ASSESSMENT OF RESOURCE RECOVERY AND ENVIRONMENTAL IMPACT	ISHER JUDGE AHLUWALIA UTKARSH PATEL	APRIL 2018
355	CHANGING TASK CONTENTS OF JOBS IN INDIA: IMPLICATIONS AND WAY FORWARD	PANKAJ VASHISHT JAY DEV DUBEY	MARCH 2018
354	TRADE RULES IN E-COMMERCE: WTO AND INDIA	ARPITA MUKHERJEE AVANTIKA KAPOOR	MARCH 2018

About ICRIER

Established in August 1981, ICRIER is an autonomous, policy-oriented, not-for-profit, economic policy think tank. ICRIER's main focus is to enhance the knowledge content of policy making by undertaking analytical research that is targeted at informing India's policy makers and also at improving the interface with the global economy.

ICRIER's office is located in the institutional complex of India Habitat Centre, New Delhi. ICRIER's Board of Governors include leading academicians, policymakers, and representatives from the private sector. Dr. Isher Ahluwalia is ICRIER's chairperson. Dr. Rajat Kathuria is Director and Chief Executive.

ICRIER conducts thematic research in the following eight thrust areas:

- Macroeconomic Management Financial Liberalisation and Regulation
- Global Competitiveness of the Indian Economy – Agriculture, Manufacturing and Services
- Multilateral Trade Negotiations and FTAs
- Challenges and Opportunities of Urbanization
- Climate Change and Sustainable Development
- Physical and Social Infrastructure including Telecom, Transport Energy and Health
- Asian Economic Integration with focus on South Asia
- Skill Development, Entrepreneurship and Jobs

To effectively disseminate research findings, ICRIER organises workshops, seminars and conferences to bring together academicians, policymakers, representatives from industry and media to create a more informed understanding on issues of major policy interest. ICRIER routinely invites distinguished scholars and policymakers from around the world to deliver public lectures and give seminars on economic themes of interest to contemporary India.