



भारतीय प्रबंध संस्थान बेंगलूर  
INDIAN INSTITUTE OF MANAGEMENT  
BANGALORE

## CCS Mid-term Report

### TRANS-PACIFIC PARTNERSHIP AND ITS IMPACT ON INDIA

CCS Guide: Prof. Rupa Chanda

Nisha Sharma (1511106)

Siddharth Dhurka (1511130)

## ACKNOWLEDGEMENT

---

We would like to thank Prof. Rupa Chanda for giving us an opportunity to study “TPP and its impact on India” as our CCS project topic. We were keen on understanding this much-talked about mega trade agreement and how it is expected to affect India. We are extremely thankful for her guidance at every step of the project. Without her continuous support, this report would not have been possible in its current form. Beyond academic support, she has been instrumental in getting us connected to various experts in this field and this has helped us in conducting our primary research.

We would also like to thank all our experts who helped us in our primary research. This list includes Dr. D K Nair, Mr. Naisadh Parikh, Mr. Siddharth Rajagopal, Dr. V S Seshadri, Mr. Abhijit Das and Mr. Badrinarayanan.

This report is our humble effort to understand the impact of TPP on Indian economy with a focus on textile sector. We have identified some recommendations addressing some of the major bottlenecks in the sector through this project report.

## TABLE OF CONTENTS

---

<b>Acknowledgement .....</b>	<b>1</b>
<b>Introduction to International trade .....</b>	<b>4</b>
<b>Contemporary History.....</b>	<b>4</b>
<b>Rules of International Trade: Tariff Rate Regime.....</b>	<b>5</b>
World Customs Organization and Harmonized Code .....	5
Most Favored Nation Rule and Free Trade Agreements .....	5
<b>Evolving concepts in international trade .....</b>	<b>6</b>
Non-tariff Barriers .....	6
Global value chain and its relevance.....	8
<b>TRANS PACIFIC PARTNERSHIP .....</b>	<b>10</b>
<b>History and Background.....</b>	<b>10</b>
<b>Key Themes of TPP.....</b>	<b>12</b>
<b>Differentiating Aspects of the TPP.....</b>	<b>13</b>
Investment.....	13
Services .....	14
Regional Supply chain.....	16
Sanitary and Phytosanitary measures (SPS) .....	16
Technical barriers to Trade .....	17
Textiles.....	17
Other features.....	18
<b>A TPP Illustration: United States of America .....</b>	<b>19</b>
<b>India &amp; the TPP .....</b>	<b>20</b>
<b>Trade Diversion.....</b>	<b>20</b>
<b>Investment Diversion .....</b>	<b>21</b>
<b>Investment Outflow.....</b>	<b>21</b>
<b>Impact of Technical barriers, SPS and other measures.....</b>	<b>22</b>
<b>Literature review .....</b>	<b>23</b>
<b>Impact of FTAs on Member and Non-Member Nations .....</b>	<b>24</b>
<b>Pre-framework Research .....</b>	<b>25</b>
<b>Post-framework Research .....</b>	<b>25</b>
Overall member country impact in post-framework models.....	26

Individual impact on member countries .....	26
Impact on non-member countries .....	26
Impact of TPP on Sectoral output .....	27
<b>Methodology .....</b>	<b>27</b>
<b>Results.....</b>	<b>30</b>
<b>Quantum of Trade Between TPP Countries and India.....</b>	<b>30</b>
<b>Category of Goods Traded Amongst TPP Nations and India.....</b>	<b>31</b>
<b>Impact of Tariff Reductions on Trade: Armington Elasticity .....</b>	<b>32</b>
<b>Conclusion.....</b>	<b>34</b>
<b>Recommendations .....</b>	<b>35</b>
Sector specific .....	35
TPP specific.....	37
<b>Appendix.....</b>	<b>38</b>
<b>Appendix 01: 13x13 Matric of trade between India and TPP members.....</b>	<b>38</b>
<b>Appendix 02: Top three traded products .....</b>	<b>40</b>
<b>Appendix 03: Top textile products of Indian exports to US (4 digit HS codes)</b> .....	<b>41</b>
<b>Appendix 04: Top textile products of Vietnamese exports (4 digit HS codes)</b>	<b>41</b>
<b>Appendix 05: Definition of HS codes .....</b>	<b>42</b>
<b>Appendix 06: Interview findings .....</b>	<b>42</b>

# INTRODUCTION TO INTERNATIONAL TRADE

---

## Contemporary History

At the beginning of the 1990s, global trade saw a dramatic spurt with the fall of the Soviet Union, gradual opening up of the Chinese and Indian economies, and rise of the Asian Tigers<sup>1</sup>. Economic prosperity was bringing up a large middle class in the East, which already accounted for close to half of the global population. Western goods, thus far affordable by a handful of families and individuals, were now witnessing demand growth from a larger and larger section of society. The below graph<sup>2</sup> captures this trend very well –

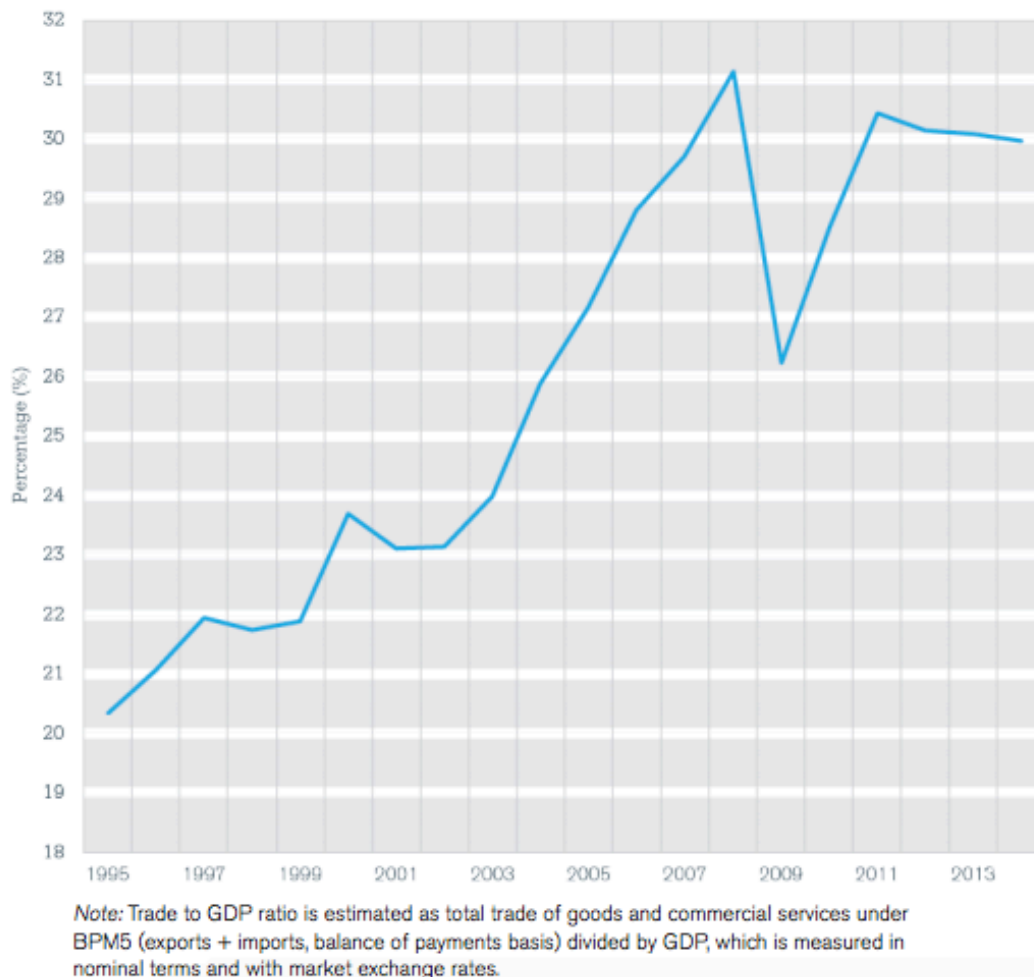


Figure 1: Trade to GDP ratio

---

<sup>1</sup> Hong Kong, Singapore, South Korea and Taiwan

<sup>2</sup> International Trade Statistics 2015, a World Trade Organization publication

The above chart also shows how trade dropped off dramatically in the aftermath of the global financial crisis. What it does not show is that post 2013 and 2014, global trade has continued to decline steadily.

## Rules of International Trade: Tariff Rate Regime

### *World Customs Organization and Harmonized Code*

The World Customs Organization based in Brussels, Belgium acts as the global governing body for all matters related to international trade. It is an independent intergovernmental agency, which primarily works to provide frameworks and guidelines to help standardize global trade and customs policies. Most importantly, the WCO was responsible in creating the Harmonized Commodity Description and Coding System generally referred to as "Harmonized System" (HS) - a multipurpose international product nomenclature. It comprises about 5,000 commodity groups; each identified by a six-digit code, and a further 4 digits for great level of specification. Trade in goods must ALWAYS fall within the framework of the HS and customs duties are applied based on these codes as well.

### *Most Favored Nation Rule and Free Trade Agreements*

As per the World Trade Organization rules (GATT Article I, GATS Article II and TRIPS Article 4<sup>3</sup>), all member states must accord each other a Most Favored Nation (MFN) status. This implies that any member state receiving MFN status should not face any disadvantageous bilateral trade policies relative to any other nation with MFN status. Certain exceptions, such as favored treatment of developing nations, regional free trade agreements (FTA) and customs, exist in so far as they do not violate principles of the WTO.

---

<sup>3</sup> Wto.org. (2016). *WTO | Glossary - MFN*. [online] Available at: [https://www.wto.org/english/thewto\\_e/glossary\\_e/mfn\\_e.htm](https://www.wto.org/english/thewto_e/glossary_e/mfn_e.htm) [Accessed 26 Jul. 2016].

Under an FTA, member countries agree to extend special trading privileges to each other in specific, pre-defined sectors of goods and services. Tariff rates, import quotas and other non-tariff barriers are lowered to allow for a freer movement of goods, services and/ or factors of production across borders.

## Evolving concepts in international trade

### *Non-tariff Barriers*

In addition to levying taxes on goods at the point of entry to a country, governments have a number of mechanisms at their disposal to reduce competitiveness of imports.

The WTO broadly categorizes them as follows<sup>4</sup>:

- Import licensing – granting licenses to allow public and private entities to import products, based on an application process and rules of eligibility
- Rules of valuation at customs point of entry – demanding adherence from importers and businesses to value goods with a predefined formula, regardless of cost or sales price of the goods
- Pre-shipment inspection – mostly applicable to exports, pre-shipment inspection requires business to verify the contents of the package being exported with the government
- Rules of origin – determining the extent to which inputs used in the manufacture/ assembly of goods are from the country of export
- Investment measures – governed by TRIMS, these policies govern the investment activities of domestic companies overseas and foreign companies within the country

Additional mechanisms not delineated by the WTO but popularly used around the world are quantitative restrictions (e.g. quotas), ad valorem tariffs (which are closely related to the ‘rules of valuation’ point above), and registration and

---

<sup>4</sup> "WTO | Understanding The WTO - Non-Tariff Barriers: Red Tape, Etc". *Wto.org*. N.p., 2016. Web. 30 Aug. 2016.

Customs procedures. According to a 2009 study citing an UNCTAD 2005 study, NTBs and Technical Barriers to Trade have increased from 55% to 85% and 32% to 59% respectively during the 1994-2004 time period<sup>5</sup>, which is widely seen as an era of widespread tariff reduction. This unequivocally indicates a shift toward NTBs away from tariffs, which are more easily identified and negotiated down. The effect that this may have on overall trade value is as yet unknown.

Collectively, the above measures are classified as non-tariff barriers and in many ways these can result in the same effects of price distortion and cost escalation that simple tariffs can have. For instance, cumbersome and non-transparent import licensing procedures increases the cost of procurement for a firm and therefore reduces the competitiveness of said consignment in the domestic market. The Multi Fibre Agreement, which lasted from 1974 – 2004, protected developed nations' textile and apparel markets by imposing a limit (quota) on the number of items imported from developing nations, who enjoyed far lower labor production costs. One landmark study on NTBs even classified this agreement as "threaten(ing) to reverse the long-term trend toward a more liberalized global trade regime"<sup>6</sup>.

Owing to the large and often unquantifiable effects this has on bilateral and multilateral trade, NTBs have been a heavily studied and heavily negotiated topic in economics studies on international trade. First regional free trade agreement that dealt NTBs in the most comprehensive manner was NAFTA (North American Free Trade Agreement) which has a chapter dedicated to NTBs that says:

*"Each Party shall use, as a basis for its standards-related measures, relevant international standards or international standards whose*

---

<sup>5</sup> Saini, Gordhan K. "Implications Of Non-Tariff Measures On International Business Operations: A Case Of India's Textiles And Clothing Firms". *J of Asia Business Studies* 5.2 (2011): 211-231. Web.

<sup>6</sup> Roland-Holst, David, Kenneth A. Reinert, and Clinton R. Shiells. *NAFTA Liberalization And The Role Of Non Tariff Barriers*. JAI Press, Inc, 1994. Print. North American Journal Of Economics & Finance 5(2).



*completion is imminent, except where such standards would be an ineffective or inappropriate means to fulfill its legitimate objectives, for example because of fundamental climatic, geographical, technological or infrastructural factors, scientific justification or the level of protection that a Party considers appropriate.”<sup>7</sup>*

Thus, goods from Mexico or Canada entering the US, cannot be held to a different standard of inspection or due process compared to goods produced in the US. From a US perspective, NAFTA tackles a number of barriers set up by Mexico, such as local content, local production and export performance requirements. Local content requirements mandate that to sell a product it must incorporate ‘a mandatory percentage of local parts or labor’. In other cases, companies must produce locally if they want to sell to the domestic market, or they must export a certain percentage of production. NAFTA eliminates all these requirements.<sup>8</sup> Interestingly, Rules of Origin restrict that goods completely from the parties receive full benefits of the agreement. There are two primary Rule of Origins which are applied to products:

- Tariff-shift rule – All non-NAFTA inputs must be in a different tariff classification than the final product
- Value Content rule - A set percentage of the value of the good must be North American (usually coupled with a tariff classification shift requirement).

Some goods are subject to the value-content rule only when they fail to pass tariff classification shift test because of non-NAFTA inputs.

### *Global value chain and its relevance*

Export-led GDP growth story has taken a new turn with the evolution of a concept called global value chain (GVC) which can be simply understood as the

---

<sup>7</sup> The NAFTA, U.S. Government Printing Office, 1993, Vol. I, Chapter Nine, p.9-3.

<sup>8</sup> "NAFTA Key Provisions". *Iatp.org*. N.p., 2016. Web. 1 Sept. 2016.

sequence of all functional activities required in the process of value addition involving multiple countries and industries. Historically, trade led growth stories used to focus of total export and import size of a country and studied its correlation with GDP growth. However, global value chain concept delves deeper into trade analysis by recognizing the fact that the final export product of a country may be made from imported intermediate product. This concept has become especially popular in current times when companies establish their manufacturing bases in other countries based on locational advantages and assembly would take place in a third country after which the final product would either be exported back to home country or to global market. This phenomenon has led to massive rise in trade volumes of intermediate products, from \$0.98 trillion to \$4.5 trillion (1991-2010)<sup>9</sup>.

There are two ways of studying GVC, one in terms of value addition and second in terms of participation. Value addition concept simply measures the domestic value addition which is arrived at by subtracting foreign value added component from the exports. This means that at the global level, value added exports can be calculated by summing up domestic value add component of all countries. In this method, double counting errors of exports and re-export of intermediate products are avoided. For example, in the year 2009 total global exports were \$17 trillion but the total value add was \$13.7 trillion. At the country level, the difference between total export value and value added exports signifies foreign value added, and this number varies across countries, ranging from 33% for China to 22% for India and 51% for Singapore. A time series analysis (1995-2010) of foreign value added (FVA) component in various countries shows that for developed countries this number has remained below 30%, which brings back the basic question, whether the FVA is a good measure to study global value chain. An alternative way to study participation in GVC is addition of domestic value add that goes into exports of other countries (Forward linkage) and foreign value add that goes in exports of the given country (Backward linkage). Using this

---

<sup>9</sup> Banga, R. (2013). *Measuring value in global value chains*. [online] UNCTAD. Available at: [http://unctad.org/en/PublicationsLibrary/ecide2013misc1\\_bp8.pdf](http://unctad.org/en/PublicationsLibrary/ecide2013misc1_bp8.pdf) [Accessed 4 Sep. 2016].

methodology, it was seen that US, China and Germany have high participation in GVC, where US has high forward linkages compared to backward linkage while China has higher backward linkages than forward ones. Ratio of forward to backward linkage is a good indicator of benefits accrued to country by participating in GVC, all developed countries like US, UK, Japan etc. have greater than one ratio. For India, the ratio is 0.93 and participation percentage in GVC is 1.1% (China is 8.9%).

On a closer look into the gains experienced by developing world in various industries through GVC, it has been seen that high-technology, capital intensive and skilled-labor based industries have been biggest gainers. On the other hand, in low- tech industries, like textiles and leather, the backward linkages are higher for developing countries because major R&D, design, marketing etc. is done by developed countries and hence maximum benefits of GVC accrue to them. Hence, it can be said that merely by being a part of GVC, countries may not gain much, it is important for them to choose the right activities that they want to perform in value chain and unless they move up the value chain the true benefits can't be realized.

## TRANS PACIFIC PARTNERSHIP

---

### History and Background

In February 2016, twelve countries that border the Pacific Ocean, namely Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, United States, and Vietnam, signed a memorandum on a comprehensive trade agreement called the Trans Pacific Partnership (TPP). TPP region has a collective GDP of \$28 trillion which accounts for 40% of global GDP and also contributes to 60% of global merchandise trade. This makes TPP about 1.5 times the size of NAFTA and of similar size as European Union.



Figure 2: TPP member countries

The aim of this trade agreement is to “promote economic growth, enhance innovation, reduce poverty and promote good governance”<sup>10</sup> among the member states. These countries, which are home to 800 million people and include a mix of developed and developing nations most of which do not already feature in the 20 nations that the US has an FTA with.

An important precursor to the TPP was an agreement between Brunei, Chile, New Zealand and Singapore in 2005 called the Trans Pacific Strategic Economic Partnership (TPSEP). Later in 2008, the entrance of other countries such as Australia, Canada expanded the scope of the trade agreements among all countries. The US, seeing as its share of GDP growth led by exports in the second half of 2007 and first half of 2008 was nearly two-thirds<sup>11</sup>, thought of the TPP as an important avenue to diversify trade relations beyond China. So

<sup>10</sup> <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2015/october/summary-trans-pacific-partnership>

<sup>11</sup> [https://ustr.gov/archive/assets/World\\_Regions/Southeast\\_Asia\\_Pacific/Trans\\_Pacific\\_Partnership\\_Agreement/Fact\\_Sheets/asset\\_upload\\_file602\\_15133.pdf](https://ustr.gov/archive/assets/World_Regions/Southeast_Asia_Pacific/Trans_Pacific_Partnership_Agreement/Fact_Sheets/asset_upload_file602_15133.pdf)

although China and Russia, with their large access to the Pacific Ocean, have been marked as potential future members of the TPP, it is common belief that the TPP's scope was specifically broadened to counter the rise of China on the global trade scene and other geopolitical considerations.

## Key Themes of TPP

Apart from the sheer size of global economies involved in signing this first-of-its-kind multilateral trade agreement, the TPP is important because of the radical change its features could bring about in the characteristics of trade and bilateral partnerships globally. Never before have the current member nations of the TPP been grouped together in any economic or political bloc, but the TPP has the potential to change that. Below are the overarching themes of the agreement as listed by the Office of the US Trade Representative<sup>12</sup>:

- Comprehensive market access – a point that primarily serves to remind that reductions in tariffs (to near zero) and non-tariff barriers to enhance trade remains the primary goal of the TPP, like any other FTA.
- Regional approach to commitments – re-envisioning supply chains from producer to consumer geographies all within TPP member nations so as to create a fully functional business ecosystem within the TPP nations.
- Addressing new challenges – keeping digital developments at the forefront and developing policies that promote innovation and productivity enhancements in the information age.
- Inclusive trade – the TPP seeks to benefit business of all sizes, and there are attempts to include development and trade capacity building so that all parties may benefit fully from the TPP.
- Platform for regional integration – redefining the region, with a view to include other Asia-Pacific countries in the future.

---

<sup>12</sup> <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2015/october/summary-trans-pacific-partnership>

From the US perspective, it is clear that the TPP is a means to access new markets for American products while simultaneously seek producer countries that could export goods to the United States. Holistically, the TPP member nations have a rich set of resources at their disposal, from Australia's natural and mineral resources, to Vietnamese low cost of labour and finally Japanese and American innovation. Together these have the potential to truly shift the trade partnerships that each of these nations has.

### *Differentiating Aspects of the TPP*

The TPP has 30 chapters that cover all topics from trade in goods and services, investment policies, intellectual property, labor and a lot more. While the guidelines laid out in the TPP will become law upon ratification by member countries, the agreement is careful to explicitly state that nothing in the document excludes countries from fulfilling existing bilateral or multilateral agreements.

In the all-important theme of trade protectionism, the TPP seeks to eliminate or significantly reduce any tariffs or non-tariff barriers on industrial goods (defined as any 'good' not related to agriculture), and also reduce barriers on agricultural goods. A brief summary of few key chapters of TPP has been discussed below:

#### *Investment*

TPP region witness heavy investment in-outflows, there is a total of \$9.6 trillion outward flows and \$8.6 trillion inward movement of FDI in the region; this accounts for 37% of world's total outward FDI and 33.1% of inward FDI.

Chapter nine of TPP framework discusses about investment rules in the region, which is broadly divided into two sections. Section A details about rights of investor and cross-border investment rules which talks about giving national treatment and MFN treatment to foreign investors from TPP region and section B is about investor state dispute settlement process (ISDS). Overall investment rules are based on "negative list" concept which means except for the sectors

specified in the “negative list” all others would have policy of free flow of investments. This is in contrast with “positive list” format followed by WTO agreement on Trade related investment measures (TRIMS). Negative list is mentioned in two annexes on this chapter. Annex I provides exemptions for existing laws at the national, state and also local government level. Annex II talks about flexibility given to investor to adopt or maintain future measures that would be inconsistent with TPP framework.

## Services

Chapter 10 of TPP framework discusses about Cross border trade in services in detail and also about change in tariff structure under TPP regime. Services form an important part of trade of TPP member countries contributing almost 50%, except for countries like Peru and Brunei.



Figure 3: Share of goods and services in foreign trade

In services also, TPP framework has taken a negative list approach for tariff reduction on trade in services, this means that except for the services mentioned in the list, all other services would have similar TPP commitment. There are a

few specific regulations for some services apart from the generic regulations that exist for all cross-border services.

*Cross border services:* Basic clauses of national treatment, most-favored nation treatment, market access apply to all the cross borders services. Few additional clauses discussed for this category are impartial regulation, transparency and free payment transfers.

*Express delivery services:* These services are treated differently here in the framework and it prohibits any country's postal monopoly from cross-subsidizing express delivery services. It also requires that for express delivery services universal postal service precondition should not exist.

*Financial services:* Apart from national and MFN treatment, there is also provisions for access to investor-state dispute settlement and a state-to-state mechanism for settling disputes. There is also a requirement for information transfer for data processing but it doesn't put a restriction of localization of computing facility, like it does in e-commerce services.

*Professional Services:* Only restriction here is the necessary qualification for delivery of such professional services.

*Telecommunications:* Framework ensures nondiscriminatory access to public telecommunications services for a TPP country enterprise working in another TPP country. It also talks about pre-requisites of interconnections, number portability, unbundling of network elements for telecom company providing services in another TPP country.

*E-commerce services:* TPP framework is unique as it talks about e-commerce services in detail, it almost impossible to ignore these services due to their astronomical growth across the world. The first thing framework ensures is that e-commerce services are treated at equal footing, meaning the benefits ensures to other services are provided to e-commerce services too. Also, customs duties should not levied on digital products such as disk etc. There are provisions that



talk about removal of barriers on free flow of information. However, there is a requirement of localization of data, meaning the servers for promoting Internet-based services and cloud computing are to be located in-country. There are few TPP members like Australia and New Zealand that have shown concern over local data storage as it may violate national privacy laws.

### *Regional Supply chain*

Competitiveness and global supply chains is an important and unique aspect of TPP. Chapter 22 on “Competitiveness and Business facilitation” talks about establishing regional supply chain for the movement of goods, especially intermediate goods that become input into the final exports. A business facilitation committee would be established between member countries that will look into issue of trade facilitation and development of supply chain to promote integration of production, facilitation of trade and cost-reduction of doing business in the free trade area. This concept of regional supply chain is borrowed from experience with APEC initiatives on regional competitiveness and supply chain development.

### *Sanitary and Phytosanitary measures (SPS)*

SPS measures set out primary rules for “*food safety and plant and animal health standards*”.<sup>13</sup> TPP requires science-based food safety regulations among member countries. Hence, to comply with TPP framework requirements member countries would have to conduct science based risk analysis before imposing SPS measures on its imports from TPP countries. This is done to ensure that SPS measures are developed and implemented in a transparent and non-discriminatory manner. SPS import regulations traditionally are not based on scientific evidence but TPP has gone a step ahead in establishing this norm where scientific risk analysis is pre-requisite for imposing such measures.

---

<sup>13</sup> Wto.org. (2016). *WTO | Understanding the Sanitary and Phytosanitary Measures Agreement*. [online] Available at: [https://www.wto.org/english/tratop\\_e/sps\\_e/spsund\\_e.htm](https://www.wto.org/english/tratop_e/sps_e/spsund_e.htm) [Accessed 5 Sep. 2016].

### *Technical barriers to Trade*

Chapter 8 of TPP details about technical barriers of trade, these are basically non-tariff barriers discussed in the earlier part of the report. These barriers relate to the standards and regulations about product characteristics and their related processes and production methods. Although, these standards already form a part of WTO requirements, TPP is aims to take these standards forward by moving a step ahead. Article 8.2 talks about facilitating trade by removing unnecessary technical barriers, and ensuring cooperation. Chapter 25 of framework which is on “regulatory coherence” augurs well with TBT, as it talks about bringing an alignment in the regulatory practices of member countries.

Chapter on Technical barriers to trade excludes government procurement from its scope.

There is also a provision for establishing TBT committee that will discussion issues of TBT and member countries can develop collective opinion on regulatory standards. This becomes important because once the higher regulatory standards are synchronized within TPP zone, this committee can lobby at the global discussion table for the enforcement of TPP standards at the international (WTO) level. This may then bring developing countries like India highly disadvantageous position as the cost for implementing such standards would shoot up the cost of production. This issue is discussed later in the report while discussing the impact of TBT on India.

### *Textiles*

There is a special chapter dedicated to the textile and apparel industry, which is a source of significant economic activity for a number of TPP member nations. Most tariffs on textiles are to be eliminated with immediate effect, barring a few ‘sensitive’ items, on which there will be a gradual reduction in tariffs. A noteworthy rule being followed by the TPP is the ‘yarn forward rule’, where tariff benefits do not apply to textile products traded within the TPP member nations if the original fabric or yarn was obtained from a non TPP member nation. This country of origin rule allows for a ‘short supply chain’ mechanism, which on one

hand helps make the supply chain manageable and transparent but on the other hand challenges existing trade practices. For e.g. if a business in Vietnam wanted to export an apparel consignment to someone in the US without tariffs and duties, they would have to ensure that the yarn was obtained from somewhere within the TPP nations (ideally Vietnam itself). If Vietnam imported its yarn for apparel manufacturing from Pakistan currently, the Vietnamese exporter would not get preferential tariff treatment. If however, the yarn was from Vietnam, or any other TPP nation, the tariff benefits would apply.

One of the common problems with international trade is the policies and regulations surrounding Customs and related duties. These are often a cause for serious unpredictability and delay, especially in developing countries with poor Customs implementation and redressal mechanisms. The TPP seeks to tackle this non-tariff barrier, by not only reducing duties but also streamlining Customs processes and popularizing the benefits so that even small and medium sized firms may benefit from them.

Another important aspect covered by the TPP is the standardization and ease of understanding of technical regulations, standards and conformity assessment procedures. Additionally, the TPP includes annexes related to regulation of specific sectors to promote common regulatory approaches across the TPP region. These sectors are cosmetics, medical devices, pharmaceuticals, information and communications technology products, wine and distilled spirits, proprietary formulas for prepackaged foods and food additives, and organic agricultural products.

### *Other features*

TPP exhaustively covers various other aspects of international trade. These include Anti-dumping and Countervailing duty provisions which perfectly in sync with WTO norms. It also talks safeguarding Intellectual property rights, ensuring Transparency and anti-corruption in government process and enforcing ILO labor standards. To be a part of global value chain, India can no longer

ignore these standards set by TPP as these private standards of TPP would find their way into other mega agreements like TTIP and RCEP sooner than later.

### A TPP Illustration: United States of America

On January 1, 1989 the US Congress enacted the Harmonized Tariff Schedule (HTS) for trade with the USA. Using the WCO HS framework of product classification, the US HTS categorizes duty into three categories – General, Special and Column 2.

The "general" rates of duty contains U.S. normal trade relations (NTR) duty rates. Products of some NTR countries may be eligible for preferential tariff programs, as reflected in the "special" subcolumn. Column 2 (the so-called "statutory rates") applies to a special set of countries – Cuba and North Korea, which is soon to be reduced to just North Korea.<sup>14</sup>

The United States of America has already granted MFN status to all prospective members of the TPP. In addition to this, USA has a bilateral FTA in force with 20 countries, which are as follows (TPP members are highlighted):

Australia	Costa Rica	Nicaragua	Israel
Bahrain	Dominican Republic	Oman	Jordan
Canada	El Salvador	Panama	Korea
Chile	Guatemala	Peru	Mexico
Colombia	Honduras	Singapore	Morocco

Table 1: USA FTA with various countries

In addition to the US, the TPP has 11 member states, of which USA already has FTAs with 6 under bilateral or regional agreements. Thus 5 countries stand to receive improved trade relations with the US as a result of the TPP: Vietnam, Malaysia, Japan, New Zealand and Brunei. This illustrates that TPP countries may be currently part of various bilateral and regional FTAs and trade

---

<sup>14</sup> <https://www.usitc.gov/publications/docs/tata/hts/bychapter/1401gn.pdf#page=3>

generation with TPP implementation with significantly depend of nature of existing arrangements.

## INDIA & THE TPP

---

It is well established from various studies and empirical evidences that non-member countries in a FTA face a setback due to “trade and investment diversion” as the member countries become more competitive and efficient<sup>9</sup>. This is the reason non-members try to understand and the hedge their risks against the prospective downward impact on their economy. India is no exception in this regard, where both industry and academia are analyzing the effects of TPP. These effects on economy can be primarily categorized into three parts:

### Trade Diversion

Diversion of trade is expected to be seen in the sectors where both India and another TPP member country are vying for a share in market of the export-destination TPP country. With ratification of TPP, this competitor economy is expected to gain significantly due to substantial tariff reductions<sup>15,16</sup>. Emerging economies in TPP are expected to benefit in sectors that are unskilled labor intensive like apparel and metals, for example Vietnam is expected to witness 27% increase in textile exports by the year 2030<sup>17</sup>. On the other hand, advanced economies in TPP will benefit in skilled labor intensive sectors. This means that India will lose out to countries like Vietnam and Malaysia in unskilled labor intensive sectors and to US and Japan in skilled labor intensive ones. This is the reason various industry group and trade associations from textile, automobile and Pharma industry are presenting their case to Government of India and

---

<sup>15</sup> USTR, (2016). *Tariff elimination schedule for Vietnam*. [online] USTR.gov. Available at: <https://ustr.gov/sites/default/files/TPP-Final-Text-Viet-Nam-Tariff-Elimination-Schedule.pdf> [Accessed 25 Jul. 2016].

<sup>16</sup> USTR, (2016). *Tariff elimination schedule for Malaysia*. [online] USTR.gov. Available at: <https://ustr.gov/sites/default/files/TPP-Final-Text-Malaysia-Tariff-Elimination-Schedule.pdf> [Accessed 25 Jul. 2016].

<sup>17</sup> Petri, and Plummer, (2016). Potential Macroeconomic Implications of the Trans-Pacific Partnership. *World Bank*. [online] Available at: <https://www.worldbank.org/content/dam/Worldbank/GEP/GEP2016a/Global-Economic-Prospect-2016-January-2016-Implications-Trans-Pacific-Partnership-Agreement.pdf> [Accessed 25 Jul. 2016].

requesting to mitigate these negative impacts via appropriate policy intervention<sup>18,19</sup>. In FY2015, India maintained a positive trade balance with TPP countries with \$79.5b exports and \$75.8b imports however, implementation of TPP poses the risk of transforming this trade surplus into deficit<sup>20</sup>.

## Investment Diversion

Chapter 9 of TPP deals specifically with the rules requiring non-discriminant investment policies providing legal protection to the rights of investors. It covers mechanism such as “most favored nation”, “minimum standard of treatment” and other internationally accepted law principles. TPP offers a “negative list”, meaning their markets are completely open to member countries unless there is an exception<sup>21</sup>. Also, there is a provision for international arbitration for investment disputes. All these provisions make TPP countries as more investor friendly destinations compared to India, creating a risk of investment diversion. Cumulative FDI inflows from TPP countries stood at \$71.3b during the period of 2000-15 with Singapore, US and Japan contributing about 27% of total FDI inflows in India<sup>12</sup>. As per UNCTAD reports Singapore and US are leading foreign investors in India and both these countries are now a part of TPP this means the India can expect a dampening effect in its investment inflows.

## Investment Outflow

The sectors of Indian economy that are set to lose out to TPP competitors due to reduction in tariff barriers are expected to hedge their risk by setting up manufacturing units in a TPP country and avail benefits of lower tariff. Major

---

<sup>18</sup> The Times of India. (2016). *ITF wants govt to study TPP impact on Indian textile cos* - *Times of India*. [online] Available at: <http://timesofindia.indiatimes.com/city/coimbatore/ITF-wants-govt-to-study-TPP-impact-on-Indian-textile-cos/articleshow/51766752.cms> [Accessed 25 Jul. 2016].

<sup>19</sup> Mishra, A. (2015). *Should India be worried about Trans-Pacific Partnership?* [online] <http://www.livemint.com/>. Available at: <http://www.livemint.com/Politics/J7OJXpiUSrkJ0seAR73sFK/Should-India-be-worried-about-TPP.html> [Accessed 25 Jul. 2016].

<sup>20</sup> CPR, (2015). *India needs to gear up to tackle TPP*. [online] [cprindia.org](http://www.cprindia.org). Available at: <http://www.cprindia.org/sites/default/files/policy-briefs/ie2%20Dec%202015-6-15.pdf> [Accessed 25 Jul. 2016].

<sup>21</sup> TPP, (2015). *Summary of the Trans-Pacific Partnership Agreement*. [online] [Ustr.gov](https://ustr.gov). Available at: <https://ustr.gov/about-us/policy-offices/press-office/press-releases/2015/october/summary-trans-pacific-partnership> [Accessed 25 Jul. 2016].

companies in textile, pharma and automobile sectors are already planning their strategic investments outside India<sup>22</sup>. Real assessment of this investment outflow can be done only by doing a company-wise analysis.

Based on the above discussed dimensions, Indian academia and industry are projecting their impact figures in the range of \$2.7bn to \$50 bn<sup>12</sup> based on various estimates and possible scenario of TPP membership enlargement. However, various international studies have pointed out that the overall impact of TPP on non-member countries would not be much and India's GDP is expected to witness -0.2% change by the year 2030 (World Bank study, 2016). Based on these two rather divergent views, this report aims to delve deeper into the issue to understand the real impact. Instead of studying the TPP impact on the overall economy, this report aims to study sector-wise impact. Authors of this report believe that certain sectors in the economy stand to lose more than others and the objective is to identify such critical sectors and assess the impact in a sequential manner. Geo-political implications of exclusion of India from TPP are kept outside the scope of this report.

### Impact of Technical barriers, SPS and other measures

Indian exporters already face heavy cost disadvantage whenever they have to comply with complex and increasing evolving rules and standards forced by major developed countries like US. This is because Indian industry has not developed their capacity to harmonize their standards as per norms of their major export markets. After conclusion of TPP, this compliance cost is expected to increase further. On the other hand, developing countries like Vietnam, Malaysia that are part of TPP are expected to bring their standards in sync with TPP norms by developing their overall industry capacity (Chapter 8, 25). This could lead to harmonization of their standards or acceptance of member countries' standards as equivalents. At an overall industry level, this would

---

<sup>22</sup> AR FY15-16, (2016). *Annual report Arvind Mills*. [online] Arvind Mills. Available at: [http://www.arvind.com/pdf/annual\\_financial\\_reporting/2016/AnnualReportfor201516.pdf](http://www.arvind.com/pdf/annual_financial_reporting/2016/AnnualReportfor201516.pdf) [Accessed 25 Jul. 2016].

reduce the extra cost burden on individual exporters in TPP members, making their exports even more cost-competitive when compared to India and affecting their participation in global supply chain.

Since, TPP framework ensures regulatory convergence and equivalence of standards, the need for double testing of exports from TPP countries would not be there while India exports would have to incur additional cost of double testing and this would also increase “time-to-market” which is a very critical parameter in high margin products.

Apart from the above discussed cost disadvantage that Indian industry would face while dealing with TPP members there is another concern looming among Indian stakeholders and that is the scenario when these TPP standards may become de-facto international standards as high negotiating power of TPP members (with world’s largest economy US as its member country) may force these similar standards on WTO, TTIP and RCEP<sup>23</sup>.

The SPS standards agreed in the TPP will impact India’s agriculture exports which is an important export sector for India as it comprises of ~15% of total exports. Here again, India’s food exports will have to pass through SPS standards and would need testing to be done, a cost that other TPP agricultural exports will not face. In TPP framework there is a provision for faster dispute settlement process for SPS disputes, this would reduce “time-to-market” for perishable products and provide boost to the perishable food business in TPP countries.

Apart from regulatory standards discussed above, the rules on labor, environment would also affect Indian industry’s cost competitiveness.

## LITERATURE REVIEW

---

---

<sup>23</sup> Meltzer, J. (2015). Standards and regulations in TPP agreement: Implications for India. *IISD*.



## Impact of FTAs on Member and Non-Member Nations

Trade agreements open markets and facilitate easier trade between member nations, which leads to a rationalization of the economies along principles of comparative advantage, expansion of customer base and overall productivity growth. This phenomenon known as “trade creation” (Hoekman and Javorcik 2006, Blyde 2004) is touted as the primary argument in favor of free trade agreements. Recent literature also suggests that trade fosters democratic reforms in developing countries (Baccini and Urpelainen, 2014a,b). Moreover, there is a domino theory which suggests that as regional trade agreements grow in membership, additional countries stand to gain more by joining and therefore offer more favorable terms in exchange for a seat at the table.

On the flip side, “trade diversion” is touted as a strong reason against FTAs. The argument is that FTAs create artificial relationships between countries not taking into account actual competencies in non-member countries. Trade may therefore be diverted away from a more efficient exporters toward less efficient member nations (Viner 1950; Balassa 1967; Baldwin 2006). Additionally, special incentives and preferential treatment outlined for the Least Developed Countries will suffer in relative terms as a larger number of non-LDCs gain from FTA membership – termed as the “preference erosion” effect<sup>9</sup>.

TPP has been studied widely since last 6-8 years and majority of the research work done on this topic has adopted the Computable General Equilibrium (CGE) model to predict the impact of TPP on trade and other macroeconomic variables. CGE models predict analysis based on equations and using model variables and database<sup>7</sup>. A CGE model database consists of two types of data: one is sectoral data and other is elasticities. The model is primarily based on input-output models pioneered by Wassily Leontieff, but CGE puts more emphasis on price<sup>24</sup>. These models use standard GTAP (Global trade Analysis Project, Purdue, US) database, which is a publicly available bilateral trade database of 57 GTAP

---

<sup>24</sup> Robinson, S. (n.d.). *Economic studies in inequality, well being and social exclusion*. pp.205-232.

identified commodities<sup>25</sup>. There are various versions of GTAP database, latest being version 9. The studies done on TPP can be classified mainly into two parts, pre-framework and post-framework.

## Pre-framework Research

Pre-framework studies are the one that were done before the finalization of 2015 TPP framework document. In these studies, researchers studied the impact of TPP based on their assumption of possible terms of agreement and there are five predominant studies from pre-framework period. A summary of results of pre-framework analysis by various researchers is given below<sup>26</sup>:

	<b>Kawasaki</b>	<b>Burfisher</b>	<b>Rahman and Ara</b>	<b>Li and Whalley</b>	<b>Cheong and Tongzon</b>
<b>Model</b>	GTAP version 8.1	GTAP version 8	GTAP version 8	CGE with differentiation	Dynamic GTAP
<b>Database, base year</b>	GTAP 2007	GTAP 2014	GTAP 2007	2011	GTAP 2012
<b>Type of liberalization base experiment</b>	Tariffs and NTMs	All tariffs and TRQs	All tariffs	Tariffs and NTMs	All tariffs
<b>Change in US GDP or welfare</b>	0.8%	0%	0%	0.67%	0%

Table 2: A summary of pre-framework studies

## Post-framework Research

<sup>25</sup> Project, G. (n.d.). *GTAP Models*. [online] GTAP. Available at: <https://www.gtap.agecon.purdue.edu/models/current.asp> [Accessed 25 Jul. 2016].

<sup>26</sup> USITC.gov. (2016). *Trans-Pacific Partnership Agreement: Likely Impact on the U.S. Economy and on Specific Industry Sectors*. [online] Available at: <https://www.usitc.gov/publications/332/pub4607.pdf> [Accessed 25 Jul. 2016]

In the post-framework phase the research has been done to study TPP impact based on the actual TPP framework document which details rules regarding tariff reduction, non-tariff barriers, investment, regional integration etc. Two research documents that are most popular or accepted works in post-framework phase are Petri & Plummer research under the aegis of world Bank (2016)<sup>9</sup> and other is US trade commission's report (2016)<sup>17</sup>.

### *Overall member country impact in post-framework models*

As per results of the World Bank Study (2016), TPP member countries will witness growth of 0.4 to 10% of GDP growth by 2030, which is purely attributable to TPP. GDP weighted average of growth of TPP countries as a whole is 1.1%<sup>9</sup>. The study also expects the benefits will accrue gradually over a period of time. Also, an interesting conclusion of the research is that the real benefits of treaty come from reduction in Non-tariff measures (NTM), whereas only 15% of gains would come from tariff cuts. Also, benefits of NTM would be more in goods than in services.

### *Individual impact on member countries*

Vietnam is expected to gain most from the TPP, its GDP is expected to grow by 10% by 2030 owing to this agreement<sup>9</sup>. The textile sector of Vietnam is expected to expand by 28% by 2030, following the reduction of tariff upto 8.7%<sup>9</sup>. Similarly, Malaysia would experience 8% growth in GDP<sup>9</sup>. This is mainly due to tariff reduction, NTMs and above all the regional supply chain which will improve the infrastructural connectivity and ensure easy movement of goods. On the other hand, NAFTA economies are not expected to gain much in terms of GDP growth as their existing trade barriers are already low.

### *Impact on non-member countries*

As per the trade volume analysis of TPP member countries, it is seen that almost half of the trade of TPP members happens within the TPP area. This means the impact of trade-diversion on non-member economies is limited. Positive spillovers like non-discriminatory trade liberalization account for 21% of gains

for member economies and 42% of global gains<sup>9</sup>(World Bank Study, 2016). These gains will be accrued mainly due to improved regulatory processes, harmonized NTMs, streamlined investment barriers. The GDP losses of non-member economies would be well within 0.1% for most economies except Korea and Thailand where the impact would be more than 0.3% of GDP by 2030<sup>9</sup>. Impact on India is expected to be about -0.2% of GDP by 2030<sup>9</sup>.

### *Impact of TPP on Sectoral output*

World bank study (2016)<sup>9</sup> says that impact of skilled labor intensive sectors (Chemicals, automobiles etc.) are likely to expand faster in advanced economies while emerging economies would witness growth in unskilled labor intensive sectors (textile, metals etc.). As a result, advanced economies are expected to experience an increase in skill premia while emerging economies would benefit from rise in wages of unskilled laborers.

## METHODOLOGY

---

This section describes the methodology adopted to understand the impact of TPP on India. As seen in previous section, there are diverging views in the academia and industry about the impact of TPP on India where some studies point towards a limited impact of TPP on GDP of India while others have pressed a panic button on TPP saying India stands to lose significantly. However, current studies have a limitation in a way that they try to study the impact of TPP on the economy as a whole and aim to assess the change in GDP or welfare due to TPP. This research, on the other hand tries to identify the key sectors that will be affected and drill down the impact on these sectors by doing product-wise and company-wise analysis and then later buildup the collective impact of sector on economy.

Current studies that assess the collective impact of such trade agreements on GDP, use CGE models. Since, this research is primarily based on sectoral analysis and not overall impact on GDP, it is focused more on using price

elasticity approach rather than CGE models. Major limitations of CGE models is that there are too many assumptions about the macroeconomic variables and these assumptions may gloss over the real impact of agreement on GDP. Another drawback of CGE model is that conclusions about trade policy are inextricably linked to the levels of tariff assumed in the base data and sensitivity analysis on this data is very difficult because altering one element of the base data required compensating other data points to balance national accounting figures. Also, the CGE model doesn't incorporate the effects of accumulation of knowledge, technology and efficiency gained over a period of time due to better regional integration.

Stepwise methodology of research done in this study has been mentioned below:

- i. To understand the current status of trade among the TPP member economies a 12x12 matrix was developed where each cell represented trade between that particular pair of countries. The matrix was based on 2015 trade data, except for Vietnam where 2014 data was used to unavailability of 2015 data<sup>27</sup>.
- ii. The next step was to study the trade volumes between India and each of these 12 member countries. Hence, the matrix was expanded to 13x13 size. Once the trade values were mapped; it was necessary to examine what constitutes this trade. Hence, for each pair of countries top three trade items were identified. Based on the value of trade it was noticed that US Singapore and Japan are three TPP countries that are India's major export destinations. Since, India already has free trade agreements with Japan and Singapore and tariff rates are already low, the impact of TPP may be limited however, this may need further analysis. US on the other hand is an export destination where we don't have any free trade agreement currently in place. Next step involved figuring out which other

---

<sup>27</sup> Intracen.org. (2016). *International trade in goods - Imports 2001-2015*. [online] Available at: <http://www.intracen.org/itc/market-info-tools/statistics-import-country-product/> [Accessed 24 Jul. 2016].

TPP members export to same destinations and thus are competing with India to grab a share in the market of these export-destinations. Here, Malaysia and Vietnam were identified as India's export competitors for leading markets, US and Japan. Hence, the focus of study was more on United States and impact on exports and India faces competitive disadvantage with lower tariff rates than competitor economies like Vietnam and Malaysia.

- iii. Since, the premise of study is to do sectoral analysis, the above given export volumes were further classified into product codes. Here the segregation of export volumes was done at two-digit HS code level. Based on the analysis, it was seen that Textile and Apparels is a sector where India and Vietnam compete for the same market that is US. In case of Pharmaceuticals, India is significantly ahead of Vietnam and Malaysia in terms of exports. In fact in pharma, India's major export destination is US and here India is competing with Singapore, Japan and Canada to get a share of US markets. Out of these three competitors, US already has FTA with Canada and Singapore and tariffs are already low. Hence, TPP will have limited impact as far as Canadian and Singaporean exports are concerned. However, Japan is expected to provide some completion in US market and this may need further analysis in next stage of study.
- iv. To further drill down the competition in textile and apparel segment, textile exports of India and Vietnam were segregated into 4-digit HS codes and product categories were ranked in descending order. These categories were then compared to identify whether the Indian textile exports are in similar product categories which means both countries compete in that category. There were three product categories (HS 6109, 6203 and 6204) where both countries are competing for a share in US market.
- v. Once, the TPP comes into force the tariff rates between Vietnam and US will alter significantly. In fact, as per the TPP framework, tariff rates for all the competing product categories will be zero on the date treaty comes

into force<sup>28</sup>. This means that Vietnamese textile goods will witness zero duty from day one of the treaty enforcement.

- vi. Degree of impact of tariff reduction on Vietnamese export is studied via price elasticity method. Here, a standard value of Armington price elasticity( $\epsilon$ ) for textile products in US is taken to be 3.05 for intragroup products<sup>29</sup>. Based on the given value of price elasticity and tariff reduction, the impact of trade is calculated using the formula given below:  
$$\Delta \text{ Trade} = \text{Current trade} * \Delta \text{ Tariff rate} * \epsilon$$
- vii. The above steps give a heuristic for quantifying the potential impact of the TPP. In addition, we interviewed (either via phone or over email) various experts, academics and stakeholders. This helped get a nuanced understanding of the dynamics of the TPP, and to test out the various assumptions made in the numerical analyses.

## RESULTS

---

### Quantum of Trade Between TPP Countries and India

Appendix I summarizes data on 2015 exports from a country to its partner, as taken from the International Trade Statistics' Trade Map. One can read each cell in the table as 'Column Country' exports 'cell amount' to 'Row Country'. For e.g. the cell first column and second row reads as India's total exports the US amounted to USD 40,312,703,000 in 2015.

Apart from providing a valuable thirty-thousand-foot view of trade between TPP countries and India, the data table allows us to narrow down to the areas of interest to us. Particularly, India's trade with US and Japan (identified as the primary export-destinations for Indian goods) and US, Japan trade with

---

<sup>28</sup> USTR. (2015). *Tariff elimination schedule for US under TPP*. [online] Available at: <https://ustr.gov/sites/default/files/TPP-Final-Text-US-Tariff-Elimination-Schedule.pdf> [Accessed 25 Jul. 2016].

<sup>29</sup> Saito, M. (2004). *Armington Elasticities in intermediate inputs trade*. [online] Available at: <https://www.imf.org/external/pubs/ft/wp/2004/wp0422.pdf> [Accessed 24 Jul. 2016].

Malaysia, Vietnam (identified as primary competitor economies to Indian exports) can be immediately compared.

With the United States, Indian exports are far greater (~\$40 bn) than those of Malaysia (~\$18 bn) and Vietnam (~\$28 bn) in absolute terms. Taking into account the relative sizes of the Indian versus Malaysian and Vietnamese economies, the two Southeastern nations have a far greater share of trade with the US. In the case of Japan, India is a smaller player even in absolute terms with only \$4 bn in trade.

### Category of Goods Traded Amongst TPP Nations and India

Next stage was to develop the 13x13 matrix of major export products from India and other TPP countries (see Appendix 02). After developing the matrix, country-wise top three export products of India were mapped and then a comparison was done to see whether any of the TPP member is also exporting to the same country in a similar product category. Starting with US, as per the matrix, India's top exports to US are precious stones, pharma and textile. On comparing with other TPP countries, it can be seen that textile is the only sector where India has a direct competition. In Pharma and precious stones sector, no other TPP country seems to be a big competitor as these sectors do not figure in top three exports by any of the TPP member country to US. Next is South America, India's major exports to South American economies is automobiles and Iron & Steel. Japan is a competitor in these markets but total volume of India's trade with South American economies is very low. Hence, impact analysis of automobile sector has not been carried out. Moving on to South-East Asian countries, India mainly exports meat, fish and crustaceans to these economies and there is hardly any competition in this sector with any another TPP country. Hence, textile and apparel is a sector that is critical to this study as the competition in this sector is high and the fall in tariff and non-tariff barriers due to TPP will actually create a substantial impact of exports of these products from India.



## Impact of Tariff Reductions on Trade: Armington Elasticity

A 2004 International Monetary Fund (IMF) working paper by Mika Saito<sup>20</sup> on Armington elasticity informed most of our theoretical underpinnings of this section of our report. In this paper Saito attempts to use regression techniques conducted on a large cross sectional data set of many countries to assess Armington elasticities for various industries.

Armington elasticity can be defined as the responsiveness of quantity imported to the price level of that country. Mathematically, this can be represented, like a substitutes' elasticity equation, as follows:

$$\varepsilon = \frac{\% \Delta Q_X}{\% \Delta P_Y}$$

*where X and Y represent similar goods from country X and Y, respectively*

The Armington elasticity should always be negative and we have assumed this as such.

One of the primary findings of the Saito report is to distinguish between intergroup and intragroup Armington elasticities. *Intergroup* elasticities are defined in terms of substitutability of one's domestic good versus an imported good, and is measured using multilateral trade data. *Intragroup* elasticities measure the same between imported goods from two different exporting nations, and is measured using bilateral trade data.

Saito goes on to recognize that the intergroup or intragroup Armington elasticities are not uniform across industries. A distinction is thus drawn between *final goods* (those producing goods for consumers) industries and *intermediate goods* (those producing intermediate input goods) industries.

For the purposes of our study, it makes intuitive sense to use intragroup elasticities, when assessing the impact of tariff reductions on Indian exports. From the IMF Working Paper, we have the following Armington (both intergroup and intragroup) elasticities for some of the most developed, i.e. market nations.

Textiles	Intergroup Elasticity	Std Error	Intragroup Elasticity	Std Error
USA	1.05	0.96	3.05	0.18
AUS				
JPN	2.43	0.37		
OECD	1.05	0.13	1.39	0.06

Table 3: Armington Elasticities of the Textile Industry of Select Nations

The World Integrated Trade Solution's *Find a Tariff* tool allows one to search for tariff rates applied by each country. For the United States, we chose the Most Favored Nation tariff rates (given Vietnam's MFN NTR status with the US) as reported by the WTO-IDB. Unlike other nations, the United States' tariff policy is determined at the 8-digit HS code level, which does not immediately align with the 4-digit approach we adopted so far in our analysis. Thus, for a given 4-digit HS code we have used a min-max range from the WITS database. This range is shown in the below table:

Category Definition	HS Code	US Duty Rate (%)
<b>T-shirts, singlets and other vests, knitted or crocheted</b>	6109	16.5%, 32%, 2.6%
<b>Jerseys, pullovers, cardigans, etc, knitted or crocheted</b>	6110	16%, 5%, 6%
<b>Bed, table, toilet and kitchen linens</b>	6302	6%, 4.5%
<b>Furnishing articles, excluding 94.04</b>	6304	6.3%, 11.3%; 12%

Table 4: United States MFN Duty Rate Category 1 for select HS Codes

Rearranging the Armington elasticity equation, and assuming X = Indian goods demanded, and Y = Vietnamese goods demanded, we get:

$$\% \Delta Q_X = \varepsilon \times \% \Delta P_Y$$

The percentage change in price, or  $\% \Delta P_Y$ , is effectively equivalent to the change in the rate of duty.

The above calculations give us the following results:

HS Code	Tariff Reduction		Change in Qty Demanded	
	Low	High	% Change - Low	% Change - High
<b>6109</b>	2.6%	32.0%	7.9%	97.6%
<b>6110</b>	5.0%	16.0%	15.3%	48.8%
<b>6302</b>	4.5%	6.0%	13.7%	18.3%
<b>6304</b>	6.3%	12.0%	19.2%	36.6%

Table 5: Estimated Change in US Demand for Indian Exports for HS Code

## CONCLUSION

---

The study began with a generic overview of the trade scenario between India and TPP countries. To assess the real impact of TPP on India, a deep dive analysis was carried out to pinpoint the areas where India would face maximum disadvantage. Based on a step-wise logical elimination process, Textile and apparel sector was identified as the most crucial sector from India's standpoint where Indian exports will get hurt. Real impact on lowering of tariff barriers in TPP on Indian textile and apparel sector was done using Armington elasticity approach where a scenario based calculation was done to arrive at a floor and ceiling of fluctuation in export percentages. In the next stage of the project, primary research was conducted to assess the perception among various stakeholders ranging from Industry to government to academia. (see Appendix 06).

There is general consensus among the interviewees that the TPP is a landmark agreement, and that India will feel ramifications given that it includes Vietnam, a fast growing textile exporter, and the US/ Japan, major textile importers. However, the nuances of the impact are less well known and not fully agreed

upon by the various parties interviewed where some believe tariff rates would impact India competitiveness while others believe that non-tariff barriers would be a more defining factor. However, almost all the interviewees believe that India has to do a lot more to improve its competitiveness in textile sector with respect to countries like Vietnam that are performing better than India even in current scenario where the tariff rates experience by them are same as India. Also, most of the interviewees believed that the rules of origin issues like “yarn forward rule” may actually limit the gains expected from TPP. A few recommendations to address the situation of textile sector in the backdrop of TPP are given in the following section.

## RECOMMENDATIONS

---

Based on the primary and secondary research done in this project, there are few areas where Indian textile could work to evade the negative impact of TPP. Broadly the recommendations have been divided into two categories, one that seeks to improve the textile sector’s competitiveness in general irrespective of TPP impact and other which addresses the TPP issue directly.

### *Sector specific*

Apart from the temporary issue of reduced cotton supply in India due to crop failure there are systemic problems plaguing Indian textile sector. It suffers cost disadvantage of about 5% compared to its competitors like China which gets huge government subsidy in terms of duty drawback and tax concessions. Issue of restrictive labor laws, high working capital requirement and infrastructural bottlenecks create a cost disadvantage which as high as 15% when compared to other low cost competitors like Vietnam and Bangladesh<sup>30</sup>.

---

<sup>30</sup> Vohra, J. (2016): *Welcome push for textile sector*. [online] Business-standard.com. Available at: [http://www.business-standard.com/article/opinion/janmejaya-sinha-rohit-vohra-welcome-push-for-textile-sector-116070401181\\_1.html](http://www.business-standard.com/article/opinion/janmejaya-sinha-rohit-vohra-welcome-push-for-textile-sector-116070401181_1.html) [Accessed 5 Sep. 2016].

Government of India has taken a welcome step towards reforming the sector through recent policy initiatives<sup>31</sup>. Amended Technology Upgradation Fund Scheme (ATUFS) would provide thrust to capital intensive investment by giving 15% subsidy. Government has also provided a corpus of Rs. 5,500 crore to the sector for duty draw back on imported raw material which is used in production of final textile/apparel product for export. In its latest announcement, government has covered state levy also in its ambit of duty drawback. Government has also announced that it would pay entire 12.5% employers' contribution toward EPF for first three years for new employees earning <15,000/month. Also, in sync with ILO norms, the cap of total overtime has been fixed at eight hours per week. All these are welcome measures from the Government and were much needed as Indian textile is passing through one of its worst phases. However, few areas that still need urgent attention are as follows:

- i. Infrastructure: Development of basic infrastructure like electricity, roads, ports etc. This would ensure greater participation of the sector in the global value chain.
- ii. India is better positioned than its competitors (except China) as it has excellence at every stage from spinning, yarn to textile and finally to garments. It needs to build capacity higher up in the textile value chain. Once the capacity is developed across the value chain, it should focus on quality and brand-building of "Made in India".
- iii. Development of Hub and spoke model is important, it calls for building production sheds of about 5000 square feet where about 500 can people work. There are successful examples of the same from Bangladesh and Cambodia that can be emulated<sup>32</sup>.

---

<sup>31</sup> Pib.nic.in. (2016). *Cabinet approves special package for employment generation and promotion of exports in Textile and Apparel sector*. [online] Available at: <http://pib.nic.in/newsite/PrintRelease.aspx?relid=146422> [Accessed 5 Sep. 2016].

<sup>32</sup> Majumdar, S. (2016): *The textile jobs pipe dream*. [online] Business-standard.com. Available at: [http://www.business-standard.com/article/opinion/shyamal-majumdar-the-textile-jobs-pipe-dream-116071401367\\_1.html](http://www.business-standard.com/article/opinion/shyamal-majumdar-the-textile-jobs-pipe-dream-116071401367_1.html) [Accessed 5 Sep. 2016].

### *TPP specific*

- i. Due of strict Rules of Origin requirements, Indian firms will be required to increase investment in Vietnam, Malaysia and other TPP countries to maintain or increase production levels. Mr. Parikh also points out that a number of African countries already have existing FTAs with EU countries and the US. These countries might therefore be a good investment destination for Indian firms to enhance trade through. While this would benefit India's tax revenues, employment and capital formation will continue to elude the country.
- ii. Although India is already moving forward in the right direction by being involved in a number of multilateral FTA discussions, ranging from BIMSTEC in the East to RCEP and even an India-EU bilateral agreement. RCEP and EU countries are major importers for Indian textiles, and the reduction of tariff and non-tariff barriers through FTAs could signal a strong opportunity to counteract any detrimental effects of the TPP. A word of caution from DK Nair is useful here, however, as he points out that India "need(s) to be careful about indirect imports from China and for this it is important to ensure the two-step formula in Rules of Origin and restrict accumulation to bilateral level." (Nair 2016)
- iii. India should deploy resources for building capability of its regulators to enable them to join international standard setting bodies. A beginning in this regard can be made by working within Pacific Areas Standard Congress (PASC). PASC works for evolution of standards at international level at the ISO, and India can use this platform to ensure that its standards and conformity assessment procedures are appreciated by international community which would help in building greater acceptance for the same.

Global value chain is shifting its base and as labor costs rise in China, the \$280 billion Chinese export share is now open to all and India can't afford to miss this opportunity to competitors in the wake of TPP. It must do

everything to save the sector that provides means of livelihood to millions of Indians and this report is an humble attempt in this regard.

## APPENDIX

### Appendix 01: 13x13 Matric of trade between India and TPP members

000s

Dolla

rs **Exports from Country Col to Country Row**

2015 Trade	India	US	Can	Japan	Aus	NZ	Spore	M'sia	Vnam	Mex	Chile	Peru	Brn
India	--	21,529,612	3,354,001	8,110,588	7,946,613	445,999	10,622,398	8,128,612	2,510,734	1,841,281	2,003,508	676,289	574,440
US	40,312,703	--	312,130,879	126,392,643	9,977,449	4,016,093	23,211,471	18,928,949	28,649,809	309,10,403	8,262,167	5,018,325	52,630
Can	2,081,219	279,990,084	--	7,735,408	1,161,531	467,347	749,916	782,183	2,077,656	10,545,724	1,240	2,301	656
JP	812,861,27	62,470,435	7,627,956	--	29,826,962	3,134	15,224,145	18,947,306	14,674,923	3,016,887	5,456	1,119	2,307
Aus	3,252,811	25,023,900	1,479,145	12,853,521	--	1,896	11,489,207	7,208,756	3,988,214	1,050,545	433,864	100,055	221,508
NZ	313,898	3,631,254	357,581	2,112,493	6,262,277	--	1,731,736	1,031,033	315,858	105,681	77,898	35,472	331,423
SP	7,805,084	28,618,741	1,171,244	19,860,105	5,092,143	753,262	--	27,842,989	2,942,040	522,545	85,127	13,565	221,825

Mal	4,89												
	2,06	12,29	618,0	12,00	3,424	657,	37,78		3,926	122,1	151,	29,0	293,
	1	2,013	66	4,817	,096	740	1,491	--	,398	95	143	97	192
Viet	5,35												
	7,21	7,071,	510,7	12,54	2,610	362,	12,13	4,465		168,4	266,	73,7	48,0
	3	699	63	3,177	,553	746	0,958	,664	--	44	180	46	38
Mex	2,76	236,3									1,34		
	8,29	77,32	5,144,	10,47	406,1	255,	1,433	1,606	1,035		4,03	544,	
	8	0	696	4,510	42	597	,168	,251	,858	--	8	600	24
Chil	665,	15,58	618,8	1,672,	239,9	94,3	58,51	219,8	520,7	1,861,		1,06	
	246	6,252	19	142	48	74	6	45	83	413	--	9,12	
												3	15
Peru	754,	8,811,	671,6	790,7	60,67	90,6	54,75	91,71	186,8	1,650,	1,63		
	985	445	59	82	5	55	5	6	90	739	5,79		
											3	--	20
Brn	30,3	133,35		120,29	35,43		773,1	689,6	49,62				
	92	9	2,275	0	5	3,264	36	74	6	1,817	199	2	--



## Appendix 02: Top three traded products

2015 Trade	India	US	Japan	Malaysia	Vietnam
India	--	<ul style="list-style-type: none"> <li>- Pearls, precious stones, metals, coins</li> <li>- Machinery, nuclear reactors, boilers</li> <li>- Electrical, electronic equipment</li> </ul>	<ul style="list-style-type: none"> <li>- Machinery, nuclear reactors, boilers</li> <li>- Iron and steel</li> <li>- Electrical, electronic equipment</li> </ul>		
US	<ul style="list-style-type: none"> <li>- Precious stones</li> <li>- Pharma products</li> <li>- Textile articles</li> </ul>	--		<ul style="list-style-type: none"> <li>- Electrical, electronic</li> <li>- Machinery, boiler</li> <li>- Rubber articles thereof</li> </ul>	<ul style="list-style-type: none"> <li>- Electrical, electronic</li> <li>- Apparel, accessories</li> <li>- Footwear</li> </ul>
Japan	<ul style="list-style-type: none"> <li>- Mineral fuels, oils</li> <li>- Fish, crustaceans</li> <li>- Organic chemicals</li> </ul>		--	<ul style="list-style-type: none"> <li>- Electrical, electronic product</li> <li>- Machinery, boilers</li> <li>- Mineral fuels, oils</li> </ul>	<ul style="list-style-type: none"> <li>- Electrical, electronic</li> <li>- Apparel, accessories</li> <li>- Footwear</li> </ul>
Malaysia		<ul style="list-style-type: none"> <li>-Machinery, nuclear reactors, boilers, etc,</li> <li>-Electrical, electronic equipment</li> <li>-Aircraft, spacecraft, and parts thereof</li> </ul>	<ul style="list-style-type: none"> <li>-Electronic equipment</li> <li>-Machinery, nuclear reactors, boilers, etc</li> <li>-Vehicles other than railway, tramway</li> </ul>	--	
Vietnam	Meat and edible meat offal, Fish, crustaceans, molluscs, aquatic invertebrates nes, cotton				--

### Appendix 03: Top textile products of Indian exports to US (4 digit HS codes)

HS code	Value	Volume	Unit	Average Price/ Unit	Vietnam's exports to US in the same category
6304	928,576	74,375	Ton	\$12,485.06	\$2151
6302	812,178	134,384	Ton	\$6,043.71	\$5521
6109	593911	16,379	Ton	\$36,260.52	\$776,624
6204	587,279	76,608,542	Unit	\$7.67	\$1,444,329
6206	398,962	60,241,030	Units	\$6.62	\$203,839

### Appendix 04: Top textile products of Vietnamese exports (4 digit HS codes)

HS Code	Value	Volume	Unit	Average Price/ Unit	India's exports of US in the same category
6110	1712802	43,132	Ton	\$39,710.70	\$58,399
6204	1444399	Not Available			\$587,279
6104	1320057	Not Available			\$120,483
6203	916098	Not Available			\$278,263
6109	776624	21,240	Ton	\$36,564.22	\$593,911

## Appendix 05: Definition of HS codes

6104	Women's suits,dresses,skirt etc&short, knit/croch
6109	T-shirts, singlets and other vests, knitted or crocheted
6110	Jerseys, pullovers, cardigans, etc, knitted or crocheted
6203	Men's suits, jackets, trousers etc & shorts
6204	Women's suits, jackets,dresses skirts etc&shorts
6206	Women's blouses & shirts
6302	Bed, table, toilet and kitchen linens
6304	Furnishing articles nes, excluding 94.04

## Appendix 06: Interview findings

To supplement the findings from secondary research and numerical analyses, we spoke to a number of experts familiar with Indian FTAs, the textile sector and with the TPP in particular. Our respondents included Abhijit Das, Head of Center for WTO Studies; Naishadh Parekh, senior executive at a leading Indian textile mill; DK Nair, advisor to textile associations; and Siddharth Rajagopal, Chairman on the Textile Export Promotion Council of India. They were asked a number of questions to assess their perception of the gravity of the TPP's effect on Indian textile sector, what India is doing/ can do to counteract it, and what are some of the specifics in the agreement that may particularly be relevant to India.

There is general consensus among our interviewees that the TPP is a landmark agreement, and that India will feel ramifications given that it includes Vietnam, a fast growing textile exporter, and the US/ Japan, major textile importers. However, the nuances of the impact are less well known and not fully agreed upon by the various parties interviewed.

Mr. Nair believes that “the most serious impact of TPP on Indian textiles exports will be the tariff concession, practically zero duty access, that Vietnam would get in the US market” (Nair 2016). In fact, Vietnam seems to be doubling down on this sector as they are in the midst of negotiating a separate FTA with the EU, expected to be finalized by 2018. Additionally, Mr. Nair points out that the average duty rate on textile imports into the US is ~16% (which is consistent with our own research), while the profit margins of Indian exporters is under 16%. Therefore, heuristically speaking, a pressure to reduce prices by anywhere close to 16% could be severely detrimental to Indian textile exports.

On the flip side, two major points of contention could dampen the beneficial effects for

Vietnam – I) Vietnam’s export structure *within* the textile sector and II) the ramifications of the Rules of Origin, specifically the Yarn Forward Rule.

Upon doing a cursory search of the top textile products exported to the US by India and Vietnam, measured at the 4-digit HS code level, it was found that only 1 product (6109 – T-shirts, singlets and other vests, knitted or crocheted) is common between the two countries. This indicates that Vietnam and India cover different portions of the textile market in the US. It was pointed out to us, however, that India and Vietnam’s export structure to Japan is a lot more similar. This is an interesting revelation but one that is not delved into deeply in this particular study, as our scope was primarily restricted to the United States as a market.

With respect to the rules of origin, Mr. Das pointed out that Vietnam imports a large number of its yarn and fabric from South Korea and China. Both ROK and China are non-members of the TPP as it currently stands, and as a result of the US’s imposition of the Yarn Forward Rule, Vietnam might actually not see a huge reduction in tariff for products exported to TPP countries. On the flip side, negotiations are currently under way to determine a ‘short supply list’, which includes “use of certain yarns and fabrics not widely available in the nations”[\[1\]](#)

It is also worthwhile to note that import tariffs are only one of the factors which affect a country’s exports, total productivity, non-tariff barriers, political relations being some of the others. This is proven by the fact that Vietnam, which faces no tariff concession as of today in the US, exports more than India and has a faster growth rate. Mexico which has enjoyed tremendous gains from being part of the NAFTA has lower volumes than even India and a negative growth rate, year on year. This makes it clear that there are certain structural constraints within India which are currently prohibiting Indian sales overseas, and will likely continue to do so in the near future.