Facets of Free Trade Agreements

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Author's Note:

With over thirty-six years of technical leadership and regulatory advisory experience across key Government of India ministries, I have engaged deeply in analytical chemistry in the tasks of seized narcotic drugs and psychotropic substances, customs classification for various goods including Chemicals & Petrochemicals, and the formulation of foreign trade policy for the chemicals and petrochemicals sector. My tenure as Technical Consultant at the Department of Chemicals & Petrochemicals and as an advisor to the Asian Development Bank, where I contributed to enhancing customs facilitation infrastructure, also provided me with firsthand insights into the negotiation and implementation of FTAs, and the harmonisation of national standards with international frameworks. I hope that the detailed explanations, case studies, and procedural guidance in this book will empower policymakers and practitioners to design balanced, science-based trade agreements that support both national interests and global economic integration.

— **Kailash Chandra Agrawal**

Author's Note:

Drawing upon my work in Investment Promotion, Value-Chain Analysis, Data Analysis and Policy-making advisory roles within the Department of Chemicals & Petrochemicals and the Ministry of Skill Development and Entrepreneurship, I have witnessed how targeted trade agreements can drive export growth and attract strategic investment. My contributions to multiple bilateral, regional, and comprehensive FTAs with extensive stakeholder consultations and a practical data-driven approach is presented here. I trust this book will serve as a practical roadmap for trade professionals, Industry stakeholders and policy makers (government officials) seeking to navigate market access negotiations, rules of origin, and regulatory compliance in an ever-evolving global trade environment.

— **Keshav Shrivastava**

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Executive Summary

Free Trade Agreements (FTAs) are the binding treaties between two or more countries to liberalise trade by reducing tariffs and other trade barriers on goods (and often include Services, Investment, Intellectual Property, etc.). In preparation, FTAs can be **bilateral** (between two countries) or **multilateral** (among several countries/ group of countries), and may be termed "comprehensive" when it cover a wide range of matters like goods, services, Investments, Intellectual Property, and Standards. Under the FTA, a member country negotiates the scope of tariff concessions, where some products may receive **zero duty**, others receive **tariff reductions**, and some may be subject to **tariff-rate quotas (TRQs)**, which allow a limited quantity to enter at low duty (will be explained in this book in upcoming chapters). These concessions are typically organised and texted in the FTA text under a "*Trade in Goods*" chapter with detailed extensions describing each item.

The main objective of any FTA is to improve market access for exporters and balance trade. Indeed, the Ministry of Commerce, Government of India, notes that after entering FTAs with regions like ASEAN, Japan, and South Korea, its merchandise exports to those partners grew substantially (e.g. exports to ASEAN rose from $34.5 billion in 2011 to $40.6 billion in 2021). Policymakers negotiating FTAs must carefully analyse the domestic value chains and current effective tariffs on the products. This involves mapping **value chains** to see how raw and intermediate inputs flow through the economy (so that concessions benefit domestic production) and examining the **present duty structure** to avoid creating harmful "inverted duty" situations/issues (where inputs are taxed more heavily than final goods). Data on production, demand, capacity, trade flows, strategic importance, and investment plans is needed for these decisions.

One of the crucial features of FTA is the **Rules of Origin (ROO)**, which determine when a product "originates" in a partner country and thus qualifies for the preferential treatment. ROO can be based on various criteria, such as "wholly obtained", changes in tariff classification, or **regional value content** (requirement of a minimum percentage of local content), among other methods. Drafting product-specific origin rules often requires strategic balancing of the desire to encourage domestic processing with the need to prevent trade deflection.

This book also debates the **Positive-List VS. Negative-List** approach to liberalisation. Under the Positive List, only specified sectors are opened, whereas under a Negative List, all sectors are known to be open by default, except those explicitly excluded in this list. Developing countries' FTA (CECA/CEPA) have generally apply a hybrid approach. In conclusion, the authors have tried to review

India's overall FTA strategy, as India had FTA in force with ASEAN, Japan, South Korea, Mauritius, UAE, Australia, etc., recently signed India-UK Comprehensive Economic and Trade Agreement (CETA) and also is negotiating more FTAs (e.g. with the EU, USA, New Zealand, GCC). Each FTA must be carefully tailored – for example, India's UAE CEPA (entered May 2022), and India's UK CETA exemplifies a modern "comprehensive" FTA with chapters on goods, services, investment, digital trade, etc. Tailoring FTAs can indeed sometimes be very tricky, where the India-UAE Comprehensive Economic Partnership Agreement (CEPA) was negotiated in just 88 days; in contrast, the India-UK Comprehensive Economic and Trade Agreement (CETA) took over three years of intense negotiations between the two countries to get finalised.

The Book is intended as an in-depth global reference with a focus on analysing India's FTAs. It covers the conceptual foundational questions, like what FTAs are, why they matter, technical details for HS tariffs & origin rules, and practical contemplations for market access analysis, domestic impact, and overall strategic objectives. All chapters cite real agreements and official sources (e.g. WTO, WCO, Trade and Commerce Ministries of various Nations) to *Ground the Discussions in actual Practice*.

Chapter 1: Trade Agreements

A **Trade Agreements** is a legally binding agreement that lays out the guidelines for the cross-border exchange of commodities, as well as frequently services, investments, and intellectual property, between two or more sovereign states (or customs territories) is known as a trade agreement. Fundamentally, a trade agreement aims to create more predictable, transparent, and mutually beneficial market access by lowering or eliminating obstacles like import taxes, quotas, and discriminatory laws. These agreements increase the effectiveness of global supply chains, boost export development, and encourage greater economic integration by unifying tariff schedules, standardising product classifications (through the Harmonised System), and establishing disciplines on non-tariff measures—such as sanitary and phytosanitary standards or technical norms. Trade agreements can be comprehensive, covering a wide range of policy issues, regional/multilateral (including multiple partners), or bilateral (involving two nations) encompassing broad policy areas like services, investment liberalisation/ commitments, e-commerce activities, and procurements. Ultimately, they serve as tools for the Governments to align their trade policy with strategic economic objectives—whether enhancing competitiveness, securing critical imports, or forging stronger diplomatic and commercial ties.

Types of Trade Agreements:

A **Free Trade Agreement (FTA)** is a treaty or an arrangement between two or more countries or trading blocs that primarily agree to reduce or eliminate customs tariff and non-tariff barriers on substantial trade between them. This is drafted under international law in which two or more countries agree to reduce or eliminate tariffs and other barriers on each other's goods and services. In an FTA, parties also often make commitments on investment, intellectual property, technical standards, government procurement, and other issues that affect trade. FTAs build on the rules of the World Trade Organisation (WTO) by creating *deeper* preferential access between members. For example, the U.S. notes its FTAs "build on the foundation of the WTO Agreement, with more comprehensive and stronger disciplines".

FTAs can be **bilateral** (between two countries) or **multilateral/regional** (among several countries). As the U.S. Trade Representative explains: "Many of our free trade agreements are bilateral ... but some, like the North American Free Trade Agreement [USMCA] and the Dominican Republic–Central America–United States Free Trade Agreement, are multilateral agreements among several parties". In India's case, its FTAs are mostly bilateral (e.g. India–Japan CEPA, India–UAE CEPA) or regional group deals (e.g. ASEAN–India FTA, South Asian agreements).

A **Preferential Trade Agreement (PTA)** is when two or more partners agree to reduce tariffs on an agreed number of tariff lines. The list of products on which the partners agree to reduce duty is called the positive list. India MERCOSUR PTA is such an example. However, in general, PTAs do not cover substantially all trade.

A **comprehensive trade agreement** typically refers to an FTA that covers a broad range of issues beyond just goods. In India's parlance, terms like Comprehensive Economic Cooperation Agreement (CECA) or Comprehensive Economic Partnership Agreement (CEPA) emphasise inclusion of services, investment, IP, etc., along with goods. These terms describe agreements which consist of an integrated package of goods, services and investment, along with other areas including IPR, competition, etc. For instance, the India–UAE CEPA (2022) spans 22 chapters, including goods, services, investment, digital trade, IP, and more. Comprehensive agreements often include chapters on labour, environment, competition, state-owned enterprises, and regulatory cooperation.

It is worthwhile to note that CECA/CEPA are more comprehensive and ambitious than an FTA in terms of coverage of areas and the type of commitments. While a traditional FTA focuses mainly on goods, a CECA/CEPA is more ambitious in terms of a holistic coverage of many areas like services, investment, competition, government procurement, disputes, etc.

Secondly, CECA/CEPA looks deeper at the regulatory aspects of trade than an FTA. It is on account of this that it encompasses mutual recognition agreements (MRAs) that cover the regulatory regimes of the partners. An MRA recognises different regulatory regimes of partners on the presumption that they achieve the same end objectives.

Examples: The India–Japan CEPA (2011) and India–Korea CEPA (2010) are comprehensive bilateral FTAs; the India–ASEAN trade deal (2010) is a regional FTA covering goods and phased services liberalization; the India–UAE CEPA (2022) and India–Australia ECTA (2022, signed) are recent comprehensive agreements covering goods, services and more. By comparison, a simple bilateral trade agreement might cover only specific tariff lines or sectors, but such narrow deals are rare in contemporary FTA practice.

Also, there is a **Customs union** where partner countries may decide to trade at zero duty among themselves, however they maintain common tariffs against the rest of the world. An example is the Southern African Customs Union (SACU) among South Africa, Lesotho, Namibia, Botswana and Swaziland. The European Union is also an outstanding example. There is also a Common Market, where integration provided by a Common Market is one step deeper than that by a Customs Union. A

common market is a Customs Union with provisions to facilitate the free movement of labour and capital, harmonise technical standards across members, etc. The European Common Market is an example. In addition, the Economic Union is also a Common Market extended through further harmonisation of fiscal/monetary policies and shared executive, judicial & legislative institutions. The European Union (EU) is an example.

Chapter 2: Need for a Free Trade Agreement

Countries enter FTAs for several reasons: to secure market access for exports, to balance trade relations, to attract investment, and to deepen economic integration. Key drivers include:

- **Market Access and Export Growth:** FTAs grant preferential (often duty-free) access to partner markets. This helps exporters enter new markets competitively. India's experience shows significant export growth under FTAs: for instance, exports to ASEAN grew by approximately. 18% from 2011 to 2021 after the ASEAN–India FTA. By reducing tariffs and red tape, FTAs can stimulate a surge in bilateral trade (often covering entire value chains).
- **Balancing Trade:** Governments often view FTAs as tools to address trade deficits. By giving domestic firms better access abroad, an FTA can help reduce a country's trade imbalance with its partner. Policymakers analyse trade data to ensure concessions are targeted to sectors where exports are likely to rise, thereby improving the *balance of trade.*
- **Mutual Benefits:** FTAs can cement strategic and economic ties. Partners may agree to liberalise complementary sectors – for example, one country opens up industrial goods while the other opens agricultural markets. Over time, this reciprocity can diversify each country's export base and sourcing options.
- **Integration into Supply Chains:** In a global economy, FTAs help integrate industries into cross-border supply chains. Access to cheaper inputs and broader markets can make domestic production more viable internationally. For instance, if an FTA eliminates tariffs on critical intermediates, it lowers production costs for domestic exporters of finished goods.
- **Investor Confidence:** FTAs typically strengthen rules on investment protection and intellectual property. This can attract foreign direct investment, as investors feel more secure about property rights and dispute resolution.

In short, the need for an FTA is assessed in terms of economic benefits (export growth, trade balance, FDI) as well as strategic objectives (alliances, technology transfer). Empirical data often informs negotiations: in India's case, official statistics show that "India's merchandise exports to all these [FTA] countries/regions have

registered a growth in the last 10 years". Such evidence supports the view that FTAs can be instrumental in boosting exports. However, policymakers also weigh potential downsides (e.g. short-term import surges), which is why Chapters 10–12 delve into detailed analysis of specific industries and tariff structures before deciding concessions.

Chapter 3: Positive List and Negative List

FTAs can be structured using either a **Positive list** or a **Negative list** approaches (especially common in services and investment chapters). Under a ***Positive list***, each country explicitly lists the sectors or products it will commit to liberalize. Commitments apply only to sectors named on the list, and countries then specify any reservations or limits for those listed sectors. In other words, with a positive list a partner country "has to explicitly ('positively') list those sectors … in which it undertakes market access and national treatment commitments". It means liberalization shall occur only in the specific mentioned list items.

In contrast, a **N*egative list*** assumes all sectors are open by default, and partner countries list only those sectors or subsectors they wish to restrict or exclude. Unlisted sectors are thereby liberalized. According to the Access2Markets portal of EU, "using a negative list, a trade partners only need to go through the second step" (means have to list exceptions tariff lines), and "all sectors or sub-sectors that are not listed are, by default, open to foreign suppliers under the same conditions as domestic suppliers". The partner countries simply reckon the sensitive services or sectors and investment segments they wish to carve out from the FTA.

The **difference** between positive and negative list format is explained in the **table below**:

	Positive List	**Negative List**
a)	A sector is not committed unless it is explicitly mentioned.	A sector is deemed committed and fully liberalised if reservations are not made for it.
b)	The positive listing of a sector, as well as the provision of Market Access, National Treatment, or Performance Requirements, imposes a standstill on the level of commitments provided in the schedule.	A negative list has 2 components: • Part A of the list is a standstill on the existing autonomous regime; and • Part B provides the flexibility to specify sectors where a partner country chooses to retain a policy

		space in respect of Market Access, National Treatment, or Performance Requirements.
c)	The creation of a positive list enables the specification of a ceiling of restrictions that fall below the autonomous degree and level of liberalisation. For example, even though 100% FDI is allowed under the autonomous regime, a country may desire to make a positive list of commitments for specific levels or sectors. This allows for flexibility to take restrictive measures up to the upper limit of commitment. **Standstill** only with regard to the degree and level of commitment made.	Part A of the negative list, as explained above, is based on the level of constraints that exist under the autonomous administration. Hence, it may be a Standstill with regard to the level of all existing measures in Part A of the schedule. If a partner country is desirous of retaining policy space for future procedures, then it would need to specify the reservation in Part B of the schedule.
d)	There is no ratcheting of commitments. A standstill only applies to the commitment made; therefore, policy space flexibility would exist to modify or reduce the autonomous degree of commitment.	Under Part A of a Negative List, the typical approach taken is that even if an existing restriction is removed and not promptly replaced, the **commitment ratchets to the level of the new autonomous level.** The ratcheted level becomes the new ceiling.

The choice between both the approaches does not change the overall scope of liberalization, but it affects negotiation dynamics and transparency. For example, the EU has used negative lists in recent agreements (e.g. EU–Japan) and positive lists in others (e.g. EU–Korea). India's older agreements like CECA/CEPA generally used a positive list approach (explicitly listing liberalized sectors), whereas newer

negotiations are often in happening on negative lists or hybrid approaches to maximize liberalization.

Key Point: Positive lists expressly mention covered sectors (with exceptions), whereas negative lists assume liberalisation and simply list exclusions. Both strategies can obtain comparable degrees of market access, but their implementation reflects distinct negotiation styles and regulatory ideologies.

Chapter 4: Details about the Comprehensive Trade Agreement and Its Attributes

A comprehensive Trade Agreement typically includes multiple chapters and annexes beyond tariff parameters. Key characteristics often include:

I. **Tariff Schedules:** Detailed lists of tariff concessions (zero or reduced duties) on goods, usually organized by HS code. These are often placed in chapters on trade in goods with side annexes for each party's tariff commitments.

II. **Services and Investment:** Commitments to liberalize services sectors (financial, telecom, professional, etc.) and to protect cross-border investment, often with specific schedules or annexes. Some of these commitments are mentioned below:

   i. **National Treatment (NT):** Under the principle of National Treatment, each Country accord investors and covered enterprises of the other Country no less favourable treatment than that its own investors and enterprises, in like situations, with respect to both the settlement and operation of business in its region. This applies not only at the central level but also at all levels of government bodies. In India, the treatment granted by any State Government to domestic investors must be equally protracted to investors from the respective partner country if they operate under the same circumstances. This principle ensures a balanced field, preventing biased treatment and reassuring foreign participation through assurance of just and viable conditions.

   ii. **Most-Favoured Nation Treatment (MFN):** The Most-Favoured Nation (MFN) commitment ensures that each Country accords to investors and covered companies of the counterpart treatment no less favourable than that granted to investors of any other third country. This includes aspects of the establishment and operation of companies. However, this obligation excludes benefits derived from international tax treaties, mutual recognition arrangements, or provident standards, and does not extend to dispute settlement mechanisms of other treaties. The MFN clause promotes consistency and avoids preferential treatment to third countries that could otherwise undermine the balance of commitments in the current agreement. India has provided the MFN status to SAARC countries, Bangladesh, Maldives, Nepal,

and Sri Lanka, excluding Pakistan (suspended in Feb 2019). In July 2014, under obligations under the WTO, India extended its MFN status to all WTO member countries.

iii. **Market Access (MA):** The Market Access provision restricts each Country from adopting or maintaining measures that enforce limitations on the number of enterprises/companies, value of transactions, operations, foreign capital participation, or number of employees in sectors where commitments are undertaken. It also prevents orders/ rules on specific legal structures or joint ventures through which investments must be made. These obligations ensure a transparent and foreseeable environment for investors, allowing business decisions to be driven by market dynamics rather than regulatory alterations, basically ensuring free market access to all investors.

iv. **Performance Requirements (PPR):** Countries agree not to enforce specific performance requirements on investors or companies as a condition for either establishment or functions. These obligations may include export marks, local value content, technology transfer restrictions, or employment related obligations like quota. Furthermore, financial advantages such as subsidies cannot be tangled to compliance with these requirements, except in special cases (e.g., R&D commitments or infrastructure expansion). This commitment must align with TRIMs (TRIMS (Trade-Related Investment Measures) seeks to curtail the effect of investment policies on global commerce with a view to ensuring that such investment measures do not create barriers to trade or result in the distortion of trade movements) and TRIPS principles (TRIPS (Trade-Related Aspects of Intellectual Property Rights) attempts to streamline the international practices reserved for patents, copyrights and trademarks by offering their protection and enforcement) and prevents trade distortion or investment obligations, while still maintaining policy space in specific strategic areas.

v. **Senior Management and Board of Directors (SMBD):** This provision ensures that a Countries shall not mandate companies covered under the agreement to appoint individuals of any particular nationality as executives, managers or members of boards of directors. This guarantees operational autonomy for foreign investors.

vi. **Schedule of Specific Commitments:** This schedule includes any terms, limitations, or qualifications applicable to specific sectors. Importantly, certain non-agreeable measures existing prior to the agreement and the country is free to maintain or modify within defined policy space.

III. **Rules of Origin:** It is a dedicated chapter defining how to determine whether goods qualify as originating in the exporting country. These rules also protect against trade deflection -- where non-member producers could redirect products through low-tariff countries -- and guarantee that only products which have been significantly produced or transformed within the FTA area receive duty-free treatment. These origin requirements generally consist of "wholly obtained" requirements for agricultural and mineral goods, changes in tariff classification (requiring a change in the HS heading/subheading), and regional value content requirements (mandating a minimum percent of the good's production to be provided locally or added value). They are commonly complemented, however, by product- specific rules-tailored, for example, to industries like textiles, electronics, chemicals to reflect real manufacturing processes and strike a balance between encouraging genuine regional production and maintaining administrative feasibility.

IV. **Non-Tariff Measures:** Sanitary and Phytosanitary (SPS) Measures technical barriers, customs procedures, trade facilitation, and regulatory cooperation. These terms refer to the Agreement on the Application of SPS measures set out in Annex 1A of GATT 1994, and all defined terms in its Annex A shall apply; relevant definitions are also adopted by the Codex Alimentarius Commission, the World Organisation for Animal Health (OIE), and the International Plant Protection Convention (IPPC). Respective Countries competent authorities enforce SPS measures—shall communicate, consult, and cooperate to ensure that measures protect human, animal, and plant life or health without creating unjustified trade barriers. Parties may also enact "emergency measures" to address urgent threats to life or health, provided such actions are science-based and transparent. The objectives of these measures are to reinforce the SPS Agreement, facilitate trade by enhancing transparency and mutual understanding, and promote the adoption and implementation of international science-based standards, guidelines, and recommendations.

v. **Intellectual Property:** It incorporates all categories set out in Sections 1 to 7 of Part II of the TRIPS Agreement, including patents, trademarks, copyrights, industrial designs, trade secrets, geographical indications, and related rights. The overall aim is to protect and enforce intellectual property rights so as to encourage technological innovation, the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.

- **Other Disciplines:** Commitments on labor and environment related provisions, open market policy, Central/ State Public Sector Enterprises, commerce/digital trade, government procurement, etc.

The term "comprehensive" signals that the agreement goes well beyond simple tariff exchanges. For example, in the India–UAE CEPA agreement, Chapters 2–11 of this agreement cover trade in goods (with tariff annexes) through intellectual property, and it even includes a separate chapter on Government Procurement (Chapter 10 of India-UAE CEPA agreement). The USTR notes that FTAs "build on" the WTO by including stronger disciplines, meaning that comprehensive FTAs often address areas not fully covered by WTO obligations. Whereas, CEPA agreements are more effective than the WTO framework in achieving partner countries for seeking specific depth, expedited and complex economic integration, as well as resolving contemporary trade challenges. Nevertheless, the WTO continues to be vital in safeguarding international trade equilibrium and serves as a global communication hub where basic regulations eliminating discrimination (with certain exceptions) are observed, providing rules, frameworks, and enforcement structures. These remain disparate tools where CEPAs enhance what is already established with the WTO.

Example: The India–UAE CEPA (2022) is illustrative. It has a *Chapter 2 (Trade in Goods)* with *Annex 2A/B* laying out each country's tariff elimination schedules. It has *Chapter 3 (Rules of Origin)* with a full annex of product-specific origin rules. It also has chapters on Sanitary & Phytosanitary measures, Technical Barriers, Customs Procedures, Trade Remedies, Services, Digital Trade, Procurement, and IP. Each of these chapters has legal provisions and often annexes. In sum, a comprehensive FTA bundles multiple commitments – *tariff concessions in goods plus binding rules on other trade-related policies* – into one treaty.

Chapter 5: Goods and Tariff Lines Defined by HS Codes

The term "Goods" describes products that can be moved, are tangible in nature, and are traded between countries. Such products are categorized under internationally accepted systems like the Harmonized System (HS) created by the World Customs Organization. In trade agreements, goods refer to all commodities of value, such as food, technology, services, manufactured goods and even industrial materials which can be exported and imported across national borders. The classification and treatment of goods within trade agreements determine the applicable tariffs, quotas, rules of origin, and other regulatory measures. Goods are typically defined and governed under Chapters 1 to 97 of the HS Chapters. Accurate identification and classification of goods is pivotal for maintaining transparency, streamlining customs procedures, and implementing discriminative trade benefits as defined under Free Trade Agreements (FTAs). An HS code at 6 digits (HS subheading) uniquely identifies a product for tariff purposes in all WTO.

For example, HS code **010121** means "purebred breeding horses". Here *01* is the 2-digit chapter (live animals), *0101* is the 4-digit heading (horses), and *010121* is the 6-digit subheading (purebred horses). Tariff schedule in any FTA, list HS subheadings (6 digits) and specify the specific tariff rate for each (generally zero duty for FTA). The term "tariff line" typically refers to a full specific product definition, which may be at least 6 digits or more, depending on the FTA.

It is important to note that the first six digits of an HS code are *uniform* globally. As the U.S. International Trade Administration notes, "the first 6 digits (the Harmonized System Subheading) will be the same" for any product in all WCO member countries. Countries may also add additional digits beyond 6 for national needs. In practice, FTAs negotiate at the HS-6 level, ensuring that "duty concessions" cover identical products in each party's tariff schedule.

Tariff Line: In an FTA schedule, a "tariff line" is typically a 6-digit HS code (or an extension) plus any qualifiers (like unit of quantity). For instance, a schedule entry might read: *"0603.11 is a 6-digit code for: Cut flowers and flower buds of roses".*

Thus, FTAs define goods and tariff lines using the HS system to ensure clarity and uniformity. The next chapters explain the HS coding system and how concessions are incorporated into FTA texts.

Chapter 6: Creation of HS Codes – Definition, History, Role of WCO, Mutually Agreed 6-Digit HS Code System Used Globally

The **Harmonized System (HS)** is the international nomenclature for classifying traded products, maintained by the World Customs Organization (WCO). This system was established by the *International Convention on the Harmonized Commodity Description and Coding System*, which entered into force in **January 1988**. The World Customs Organization (then the Customs Co-operation Council) developed the HS to create a common language for trade and statistical purposes.

Under the HS Convention, over 200 countries and customs organizations agreed to classify their imports and exports according to a six-digit code (also called sub heading). This Convention's objective is to facilitate international trade and the collection, comparison and analysis of statistics by harmonizing the description, classification and coding of goods in international trade. Hence, all the WCO members fix their national tariffs to follow to the HS nomenclature up to 6 digits level. Thus, the HS code system is used as the universal basis for customs tariffs, statistical reporting, and also for FTAs ("as a basis for rules of origin" and tariff concessions).

The WCO is responsible for maintaining and periodically reviewing the HS revisions are made to accommodate new products and technologies. Since 1988 there have been major updates in the years 1992, 1996, 2002, 2007, 2012, and 2017. It may be noted that WCO makes some comprehensive changes in the Harmonized System approximately every 5 year. These HS revisions are negotiated and approved by WCO members through the Harmonized System Committee. Between revisions, countries mandatory cannot unilaterally change the first six digits of HS codes in their tariff schedules, ensuring global uniformity.

To summarise, this is a globally recognized system (by WCO convention) that provides a 6-digit (international level) classification of goods. All WTO/FTA tariff schedules use these 6-digit HS codes. According to domestic needs countries may add further digits (to 8, 10, etc.) for further classification of goods into specific products in more detailed national schedules; these extra digits are not harmonized internationally but are used for domestic tariff and statistical purposes.

Chapter 7: Classification of Goods into 21 Sectors and 97 Chapters – Explanation of 2-, 4-, 6-, and 8-Digit Code Hierarchy

The HS organises commodities into a hierarchical structure of sections, chapters, headings, and subheadings. In the current ITC-HS 2022 (International Tariff Customs Harmonised System), there are **21 Sections** grouping broad categories (e.g. *Animal Products*, *Textiles*, *Machinery*, etc.). Within these 21 sections are **99 Chapters** (numbered 1 through 99). (Some references list 97 chapters, counting Chapter 97 on works of art and antiques.) Each chapter covers related goods. Chapters 77 and 97 is reserved for potential future use internationally, and Chapters 98 and 99 are reserved for the respective nations' use.

The coding hierarchy is as follows:

- **2-digit code (Chapter)**: Defines a Chapter. For example, Chapter 72 (*Iron and Steel*, code "72"); Chapter 09 (*Coffee, Tea, etc.*, code "09").
- **4-digit code (Heading)**: Each chapter is divided into headings (4-digit). For example, within Chapter 72, heading 7209 = "Semi-finished products of iron or non-alloy steel". In HS 2022, there are total 1,228 headings.
- **6-digit code (Subheading)**: Headings are subdivided into subheadings (6-digit), which is the highest international level. For example, 720941 = "Iron/steel bars and rods, hot-rolled, in irregular form". In HS 2022 edition there are 5,612 subheadings.

Thus, any 6-digit HS code conveys broad information: the first two digits give the chapter, the first four give the heading, and all six give the specific subheading. Crucially, this 6-digit structure is standardized worldwide: as noted, "2-, 4-, and 6-digit codes are the same all over the world". This means that, say, "HS 071340" is the code for *"Lentils"* in every country's tariff schedule.

Countries can extend beyond 6 digits for national purposes. For example, they might use 8, 10 or even 12 digits by appending two or more extra digits to the 6-digit code. These extra digits allow each country to differentiate further (e.g. by type, size, or use). For instance, all countries use 071340 for lentils, but some add two more digits to distinguish *lentils for sowing*, *green lentils*, *red lentils*, etc.. The EU, USA, and others use 10-digit codes; India's Integrated Tariff uses 8 digits; China and some others use 12 digits. These additional digits are **not** covered by the HS Convention and can vary by country to country depending upon requirements and facilities. Hence, when

anyone wants to compare goods which are being exported and imported, the products can be found in the same 6 digit code but might have different 8 digit code.

To summarize, the Harmonized System has 21 sections and 99 chapters. Within chapters, codes expanded as: 2 digits which is called chapter, 4 digits is called heading, and 6 digits is called subheading, which is internationally uniform. Many countries append 2 extra digits (making an 8-digit code) or even more for respective counties' tariffs. FTAs negotiate tariff commitments at least at the 6 digit HS level, ensuring like-for-like coverage of goods across member schedules.

Chapter 8: Drafting FTA – Incorporating Direct Concessions and Rules of Origin

When negotiating a FTA, countries draft legal text that basically includes **Tariff concessions** and **Rules of Origin** along with other provisions. The procedure generally involves:

- **Tariff Concessions (Schedules):** Each country prepares a tariff schedule (often annexed to the agreement) listing tariff lines (HS Codes) of goods and the fix tariff rates. Direct concessions might range from full elimination (zero duty) by a certain date, or staged reductions where tariff are reduced in stage manner for e.g. 20% to 10% to 0% over certain years. In the FTA text are drafted in manner that these schedules appear under a chapter on Trade in Goods. For example, the India UAE CEPA has *Annex 2A* where India's tariff commitments mentioned and *Annex 2B* where tariff commitments for UAE is mentioned. Those annexes consist a list HS lines (6-digit or 8-digit) with the agreed tariffs rates.
- **Rules of Origin (ROO):** The agreement must also define *which goods qualify as originating in a counterpart country only*. ROO provisions are typically placed in a separate chapter with all technical criteria. Each FTA then includes a *Product-Specific Rules* annex (like Annex 3B in India–UAE CEPA) that spells out the origin test for each HS heading (e.g. requiring a particular manufacturing process or value addition). The ROO usually defines general origin criteria (wholly obtained, Change in Tariff Heading/ Change in Tariff Sub-Heading, Regional Value Content, etc.) and then complies specifics to the Product Specific Rules in the respective annexure.
- **General Language:** Apart from these, negotiating countries also draft general provisions (definitions, general terms) and chapters on other issues. For drafting tariff chapters, negotiating countries also need to specify, for each tariff line, the duty phase-out or binding. This often involves matching each country's HS schedule line by line. For the origin chapter, it define how to interpret terms like "wholly obtained" and set the rules for example change in tariff classification that imported inputs must satisfy.
- **Consultation and Revision:** Often, drafting of FTA undergoes multiple rounds. Country representatives often visit each other's countries multiple times to negotiate the deal. Trade officials from each country propose lists of

tariff lines they want liberalized versus lines to protect like some sensitive product lines. They also exchange draft ROO criteria drafted for specific sector requirements like for chemicals, textiles sectors. The draft text of the FTA is revised multiple times until both sides agrees on the Tariff Schedules and Rules of Origin.

Example (India–UAE CEPA): The India–UAE CEPA text (2022) shows this structure. In *Chapter 2* specifies about *Trade in Goods*, followed by *Annex 2A* (India's tariff schedule) and *Annex 2B* (UAE's schedule). Following this, In *Chapter 3* specifies about *Rules of Origin*, with *Annex 3B* listing the Product-Specific Rules. Thus, the draft agreement neatly separates the concession schedules from the origin rules, allowing negotiators to update each as needed. In September 2021, India and the UAE formally launched negotiations, later both sides initiated fast track discussions for 88 days straight. Finally in February 2022, both side signed the agreement, and was implemented in May 2022.

Therefore, drafting a FTA involves codifying negotiated commitments into a formal structure which includes chapters on goods with tariff annexes, chapters on origin with PSR annexes, and many chapters on services and other matters (if it's comprehensive). This ensures transparency that each tariff line's provision is mentioned in advance, and each category of goods has a clear origin test.

Chapter 9: Parameters to Consider for Market Access (Tariff Elimination, Zero Duty, Tariff Reduction, Tariff Quota)

When granting market access in an FTA, trade officials/ policy makers must decide on the factor that **'how much to give and for which products'**. The main parameters to include:

i. **Tariff Elimination (Zero Duty, TEI):** Eliminating the tariff duties entirely is the maximum concession which one country can give to another. This means the importing country agrees to eliminate all sorts of duty on the specific imported item (identified by 8-digit HS code for India) For Free Trade Agreement ultimate aim is zero tariffs on "substantially all trade". For example, an FTA might immediately or over the time eliminate duties on most industrial products. Zero-duty treatment is attractive to exporters and can significantly enhance trade volumes.

ii. **Tariff Reduction (Partial, TR):** Sometimes full elimination is not politically or economically feasible for certain items/ goods. In these cases, a gradual reduction (e.g. 20% → 10% over X years) may be negotiated. A reduced duty means duty levied should cost less than MFN rates, but may not be fully liberalized. This treatment is used for reduction schedules to protect emerging industries, actualized investments and thus reducing tariffs slowly so that domestic capacity can grow.

iii. **Tariff-Rate Quotas (TRQs):** For highly sensitive agricultural or food products, FTA frequently use **tariff-rate quotas**. A TRQ criteria allows a set volume (quota) of imports at a reduced (often zero) tariff, while imports beyond that quota may face a higher duty or general duty. This way, limited market access for a product is granted without fully opening the sector/ tariff line. As it is noted in case of FTA of EU, preferential tariffs usually apply to a predetermined quantity of imports, known as tariff rate quotas (TRQs). TRQs act as a balance in liberalization with domestic protection, up to the certain quota of cheap imports flow. Also domestic producers can retain a market space in against the total demand.

iv. **Exclusions (E):** Beyond the above-mentioned tools, countries often designate certain tariff lines that are ***excluded*** from any kind of concession (at least initially years until the next review). For example, if the final product

is deemed sensitive then it might be kept at high duty, while allowing some concessions on inputs materials. Conversely, a key raw material for industry might be liberalized to support local manufacturers. In case of India, agriculture sector is a sensitive sector, therefore many crops are usually kept in exclusion list.

Key Considerations: In selecting these criteria, it is important to analyze industries' requirements and vulnerabilities (explained in upcoming chapters). They look at import volumes, domestic supply, and projected impact. For instance, granting zero duty on a product makes domestic markets fully exposed for industries of counterpart country , whereas a phased reduction or TRQ might be used for items where local manufacturers needs time to compete. Importantly, any liberalization must avoid unintended distortions in trade and internal market scenario.

To sum up, FTA market access is not a one-size-fits-all solution. It ranges from **full duty elimination** to **gradual tariff cuts**, to **limited access under a quota**. Policymakers must calibrate these depending upon the product's importance to trade, domestic industry's health, and strategic priorities.

Chapter 10: Factors for Market Access on Concessional Duty Imports

When deciding concessional tariffs for imports under an FTA, it is most required to conduct a depth product-wise analysis and industry level analysis. This chapter explores the data and factors that inform ***how*** **and** ***what*** to apply the (TEI, TR, TRQs, or E).

10.1 Value Chain Analysis

Firstly it is very important to conduct a detailed **value chain analysis** in order to understand each product and the specific sector it influence. This involves mapping of checkpoints of the value chain from the supply chain raw materials, to intermediates, final products in order to understand International inputs. However, the key question remains that which inputs, raw materials or intermediate goods required are imported or can we produce domestically? where are the bottlenecks or the cost of production?

For example, if Country A exports steel widgets but lacks local steel production. Its widget manufacturers have to rely on imported steel. If an FTA partner (Country B) has the ability and can offer low-cost widgets in the domestic market of Country A by avoiding duty on those widgets, then this will create unrest in the domestic market of Country A. Also, if Country A imposes high tariffs on steel imports, domestic widget manufacturers would then be at a disadvantage. A value chain view would highlight this inversion.

Purpose of the activity: This analysis reveals where an FTA concession could actually benefit the domestic industry. If domestic manufacturers need low-cost input materials, then an FTA can liberalize the duty on those input materials, which would eventually reduce the production cost of that final product. On the conflicting view is that, if domestic manufacturers can compete with imports in long run, the country may hold back on liberalizing the final product until domestic manufacturers can scale up to match and compete. Therefore, understanding the value chain helps to ensure 'concessions boosted competitiveness' rather than discouraging it.

10.2 Present Duty Structure

It is required to review the **existing tariff structure** from time to time. Policymakers examine current MFN or bound duty rates on raw materials, components, and final

goods. The goals are to avoid *duty inversion* and to align any new preferential rates with domestic policy.

For each product in consideration, it is required to question: *What is the current duty on the imported final product? What duties do local manufacturers pay on their inputs?* If, for example, if a final product currently faces 30% tariff but its input material face 10% duty, liberalizing that final good without adjusting the input material's tariff would create an inverted structure. Thus, trade officials/ policy makers may decide to keep some tariffs unchanged or restructure them accordingly.

This step ensures consistency, and *compensatory measures* are considered if duties are reduced on one item. Hence, it required to analyse that duty increases or reduction of duty can be applied on another or impact the other product? In India, Department of Commerce for instance, studies inverted duties across thousands of HS lines to adjust its tariff policy. The present duty analysis provides the baseline against which preferential concessions are measured.

10.3 Availability of Raw, Basic, Intermediate, and Final Products (with Examples)

Another key factor is the **domestic availability** of products at all stages: raw materials, intermediate input materials, and final goods/products. It is important to consider whether local industries can supply the materials involved at all stages of value chain. If a country lacks a local raw material or intermediate supplier, then liberalizing its import may support downstream industries. On the other hand, if local capacity exists, liberalizing a competitive import may cause injury to domestic business.

Example: CUTS International (a Consumer Unity & Trust Society) highlights a telling case of India's textile sector, where India has no domestic industry for *dissolving-grade wood pulp* (a raw material), and it levied a 2.5% import duty on wood pulp because it classified it under "cellulose" for tariff purposes. Meanwhile, *viscose staple fiber (VSF)*, a value-added product made from wood pulp entered India duty-free under the ASEAN FTA. Since wood pulp accounts for ~65% of VSF production cost, this mismatch meant Indian VSF producers pay much higher input costs than competing imports from ASEAN countries. A careful FTA analysis would have spotted the lack of domestic pulp and adjusted duties accordingly.

Data Requirements: To make these assessments, it is required to gather statistics/ data on:

- **Production and Demand:** Data on domestic production volumes and capacity, domestic consumption needs, and trend forecasts in comparable units for better understanding.

- **Trade Flows:** Data on import and export quantities and values by HS code before and after applying FTA to gauge dependency on a product.
- **Capacity and Investment:** Analyse existing industrial capacity utilization, planned expansions, and investment projects in the whole value chain of a product.
- **Strategic Importance:** Understand whether the product is key for national industries like defence, energy, core manufacturing etc.
- **Employment Impact:** A number of current employees at stake in relevant industries.

This data can be typically sourced from national statistics bureaus, industry reports, national custom bodies (such as DGFT- Directorate General of Foreign Trade for India) and international trade databases. It is equally important to collect and analyse comparable data for the counterpart country, particularly for the targeted products that Country A seeks to promote in its export market. Together, it forms an evidence base for negotiation.

Policy Considerations to Promote Domestic Manufacturing Through Duty Structuring under FTA

Based on the above analysis, policymakers may adopt various **policy measures** in the FTA to protect or promote the domestic industry:

- **Tariff Staging:** Delay in tariff reduction on sensitive or high value added product while liberalizing its respective input goods, thus giving domestic producers time to adapt and develop the inhouse manufacturing capacity.
- **Volume Controls (TRQs):** Use of tariff quotas on products where full liberalization could have devastating effect on small/ medium domestic manufacturers.
- **Safeguards:** Include provisions (like temporary safeguard duties) for adjustment of local industries in the case of imports surge on a particular tariff line.
- **Rules of Origin Choices:** Set rules of origin criteria in such a manner that favors domestic processing, significant value addition (e.g. higher local value-add requirement) to promote domestic manufacturing of the whole possible value chain.
- **Non-Tariff Measures:** Where appropriate, strict standards are placed or licensing can be levied on imports to level the playing field for domestic goods (provided this aligns with WTO rules).

For example, if a country wants to encourage its electronics manufacturing, it might liberalize silicon wafer imports but postpone reductions on fully assembled consumer electronics or ICs (integrated circuit also known as a microchip), or require a percentage of local assembly for origin. In India, the government also make schemes like PLI – Production Linked Incentives alongside trade policy, but the tariff structure remains a critical tool.

Additionally, when taking an FTA in the context of a country whose economy is a service driven economy (e.g. Switzerland, Slovenia, etc) and where domestic manufacturing activity does not happen (may be due to low availability of resources like man power, land, regulations, etc.). Here the rules of origin and tariff reduction will be given on considering different aspects and interests of the nation.

The decision-making will weigh all these factors: ensuring that concessional tariffs lead to net benefits (higher exports, more local value-add) without irrevocably damaging the domestic industries. In practice, this often means *selective liberalization*: drafting broad agreements on less sensitive products for a nation, and more gradual or conditional access for others, as informed by the data and analysis explained above.

10.4: Inverted Duty Structure – Issues and Prevention

An **Inverted Duty Structure (IDS)** arises when the tariff on imported input materials or raw materials is higher than the tariff on the imported final products in which they are used in the same value chain. This inversion in duty structure hurts domestic manufacturing by making input materials artificially expensive relative to the finished goods. For example, CUTS International defines IDS as going on process "when the tax rate is levied on intermediate input materials and raw materials, exceeding the tax rate on the final product". The same phenomenon can occur under GST when input tax rates are higher than output tax rates, but one can focus on customs duties.

Why It Matters: An IDS gives a competitive advantage to foreign manufacturers who bring in finished goods at low or zero duty, while local manufacturers have to pay more for their imported required input materials. As it can be witnessed in various studies, IDS was a widespread issue affecting many products in the textiles, electronics, chemicals, and metals sectors. The VSF (viscose staple fibre) case illustrates this. In India, wood pulp was taxed at 2.5% (despite no domestic pulp industry) while allowing imported VSF free entry under the ASEAN FTA. This meant VSF makers paid much more for pulp, severely destabilising their price competitiveness.

Link to FTAs: IDS can be exacerbated by signing uncalibrated FTAs if policymakers liberalise finished goods without aligning input tariffs in a stepwise

manner. As reported: "the IDS problem … can also happen on account of tariff reductions negotiated when India signs a free trade agreement with a partner country, which can mainly be seen in ASEAN-India Trade in Goods Agreement, India-Korea CEPA". In other words, giving zero duty to a final good under an FTA but leaving a high duty on its key components creates an inverted structure.

Prevention and Remedies: To prevent IDS, policymakers must ensure that duty concessions do not disadvantage domestic value chain setups. The strategies include:

- **Aligning Tariffs:** When reducing tariffs on finished goods, simultaneously reduce tariffs on their key inputs. For instance, if a final product is liberalised, it is important to check if its primary raw materials should get similar treatment. This will enable the domestic industry to compete, and in the case where there is no domestic industry, carefully analysed, reduced duty will develop the domestic ecosystem for housing the production of that value chain.
- **Stage Concessions:** Delay in liberalisation of a final good until domestic manufacturers can secure lower input costs for the key raw materials. This might mean giving input materials at lower duties first and then staging it up for giving ample time for domestic manufacturers.
- **Adjust Rules of Origin:** Require a higher local content or specific processing for rules of origin or product-specific rules, effectively ensuring more domestic input materials to be used before the product qualifies for benefits under the FTA.
- **Safeguards and Reviews:** It is important to review mechanisms to correct any emerging IDS issues (for example, as the Government of India has initiated a post-budget review mechanism to rationalise duty rates to "eliminate duty inversion"), often it is pointed out by the Industry stakeholders.
- **Broader Reforms:** Sometimes an IDS signals a need for deeper tariff rationalisation, where small medications won't work, and sometimes surgery is required. It is noted that resolving IDS anomalies may require deep sector and product-specific studies, and it is also important to balance the interests of upstream vs downstream industries.

Example (continued): In the pulp-VSF case, as discussed multiple times in this chapter, prevention would have involved reducing the 2.5% duty on pulp (given no domestic industry) before or during the FTA negotiation that may cut VSF duty to zero. Alternatively, the Government of India may already have exempted dissolving pulp from duty or provided a TRQ to ensure an ample supply.

Hence, avoiding an inverted duty structure is a key consideration in FTA market-access decisions. Policymakers must check that any duty reductions on finished imports do not come at the expense of domestic manufacturing costs. In practice, this means carefully aligning the tariff treatment of input and output goods when finalising the FTA concessions.

Chapter 11: Decision-Making Process on Duty Concession Based on Previous Factors

Policy Makers or Industry stakeholders providing FTA recommendations synthesise all the above analyses to decide on tariff concessions. This process typically involves:

1. **Stakeholder Consultation:** Industry groups and trade associations play the most critical role in providing inputs on which products could be liberalised or protected. Stakeholders are required to share detailed proposals or lists of sensitive items, including the data of domestic demand, current production, installed production capacity, near future expansion plans, current and past data on imports and exports supporting the purpose of the representation.
2. **Inter-Ministerial Review:** Technical professionals with a background of commerce, economics, finance, industry, and sectoral experts from the respective stakeholder ministries must review the value-chain studies, trade data, and stakeholder industry inputs. All this data is weighted in accordance with national policy goals for each sector against trade objectives.
3. **Developing Tariff Strategy:** Based on the analysis, it is important to craft a tariff strategy for each sector which are prominent. For example, "100% of duty elimination in 5 years for Product A (to boost exports) but retention of 15% duty on Product B with gradual phase-down in order to protect the domestic industry." Thereafter, Sensitive lists are finalised for each side of the FTA.

This chapter has outlined the analytical groundwork. In practice, it is vital to ask: *Will lowering the tariff on this product likely increase exports enough to justify the domestic cost?* If the analysis suggests a net gain, the required concession can be made; if not, it is limited in quantity or may be traded off for some other product. The rest of this book illustrates how these decisions play out in real FTAs and rules.

Chapter 12: Rules of Origin

Rules of Origin (ROO) are the criteria used to determine whether a product is considered to "originate" in the FTA member country within the national geographical boundary, making it eligible for preferential tariff treatment under the given FTA. Rules of origin are essential because they prevent *trade deflection* to explain: re-routing goods from a non-member country C through low-duty member countries or a where FTA was signed, keeping other aspects in place, for example, If India enters an FTA with an South Asian country where a certain product is not manufactured widely, hence importing at reduced tariff may not affect the Indian market, but if that South Asian country also have an free trade agreement from other country e.g. China, then this product can be routed from China to India via this South Asian country if strict rules of origin are not in place. Therefore, the rules of origin are as crucial as the tariff concessions chapters. Its importance is derived from the fact that duties and restrictions in several cases depend upon the source of imports.

The rules of origin are used for multiple objectives, some of which are mentioned below:

• It implements specific measures and instruments of the international trade policy, such as antidumping duties and safeguard measures. These measures are specifically mentioned under the rules of origin to prevent mismanagement of free trade agreements, where, in the case of search in imports of a specific product, harming the interest of one Nation can be prevented.

• It also determines whether the imported products will receive the Most Favoured Nation status or any other preferential treatment.

• It is also required to conduct a statistical analysis of the trade from the originating country.

• for the purpose of the originating country, it is required for marking and labelling applications on a product

• Under government procurement of products, rules of origin play a crucial role, where trade depends on developing relations with a particular Nation.

The key aspects of ROO includes:

12.1 Definition

In FTAs, a product is deemed *originating* if it satisfies specified conditions in its manufacturing process or production. These conditions are outlined in the Rules of

Origin chapter as an annexure of the FTA. Commonly, origin criteria fall into categories such as:

- **Wholly Obtained/Grown (WO):** Those items which are completely produced/ originate in the country, e.g. extracted minerals, harvested crops, animals born in that country, or by-products of those, are automatically considered as originating goods.
- **Change in Tariff Classification:** A non-originating input goods/ materials is sufficiently processed or has undergone a significant value addition, then the final product's HS code (at 4- or 6-digit level) shall be different from that of all non-originating input goods/ materials. This is often called a *tariff shift* rule in international trade.
- **Regional Value Content (Substantial Value Addition):** A product originates at some other place, and if a certain percentage of the product value is added in the FTA region/ country. This means that labour cost, material cost, and overhead cost from the country must make up to an X% in the final value of the product.

Rules of Origin may also allow *de minimis,* meaning a small share of non-origin content or *accumulation,* treating inputs from other FTA members as originating, but these are in more technical terms.

The rules of origin are enforced through a certificate of origin that is issued by authorised agencies of the exporting country (it is legally specified that the product is qualified under the product specific rules drafted under the same free trade agreement) An exporter cannot avail of the prefential customs tariff treatment under the FTA without submitting this certificate of origin from the authorised agency of the exporting country. In some of the FTAs, it is witnessed that the exporter has to self-declare that the product, which is being exported to the partner country, qualifies for the product-specific rules mentioned in the agreement. Here, many times conflict arises where, on investigating it is found that the exporting company does not qualify for the originating material. Therefore, to avoid such situations, multiple stage-wise safeguard measures and investigating measures should be put in place while drafting the rules of origin.

12.2 Product-Specific Rules

While general principles exist, most FTAs also include **Product-Specific Rules (PSRs)** for each category of goods, often characterised by an HS chapter or heading. PSRs specify exactly which origin criterion applies to a particular product. For example, the PSR for electric motors might require a 40% regional value content *and* a change in tariff chapter, whereas the PSR for a textile might simply require the yarn

to be made from fibres originating in the region, depending upon the factors discussed in previous chapters. PSRs are basically listed in an annexure of the agreement, for e.g. "Annex 3B-Product Specific Rules" in India–UAE CEPA.

For each Free Trade Agreement, negotiates on terms of PSRs based on the respective industry norms and interests. It is important to consider the domestic production process: for instance, in the chemical sector products, a *chemical reaction* rule is required. It defines the process of converting input chemical materials into another chemical output material (may be an intermediate chemical product). In manufacturing, a tariff shift rule might suffice, for e.g. when cloth is woven from foreign fabric may be considered as value addition and also it will be defined as changes in tariff heading.

12.3 Origin Criteria Elements (Wholly Obtained, CTH, CTSH, RVC, etc.)

Common origin elements include:

- **Wholly Obtained/Produced (WO):** A product is originating or wholly obtained if all its materials are obtained from one country and it undergoes only domestic processing. Examples: fruit harvested locally, fish caught in national waters, minerals extracted. Therefore, no value-added test is needed for wholly obtained goods.
- **Change in Chapters:** It means that a non-originating product has undergone a significant processing that it changed its tariff classification at the two-digit level. if aluminium falling under chapter 76 is used to produce a finished product for example, a wrist watch falling under chapter 91 than the product is said to have changed in tariff chapter, also when flour is processed to make pasta it may also be considered as a change in tariff chapter.
- **Change in Tariff Heading/Subheading (CTH/CTSH):** For products with multiple input materials, origin may be given if the final HS code at the 4- or 6-digit level differs from those of any non-originating input materials. For example, in an FTA with "CTH" rules, where imported steel bars (HS code72.72) might become automotive parts (HS code 87.08) – a change in heading occurs, conferring a change in origin. The CTSH (Change in Tariff Subheading) rule requires a product to switch the 6-digit tariff level by processing or undergoing manufacturing. Generally, CTH is stricter than CTSH, meaning value addition for a product is more significant in CTH than in CTSH. But for some goods, CTSH is stricter than CTH.
- **Regional Value Content (RVC) / Value-Added:** Many FTAs require that a minimum percentage (say 40% or 50%) of value addition of the product's

final value imported from the FTA country. For example, an FTA might say: *"Product X is originating if at least 45% of the ex-works price is from materials/processing in that country."* RVC formulas may vary depending upon net cost, build-up, etc., but the idea is to ensure substantial production in that member country. Each FTA has its own product-specific rules of origin that proscribe what RVC method/formula(s) it may use to qualify.

- **Qualifying Value Content (QVC):** It is a quite similar method used to determine the sufficient value addition by production or processing within the originating country. It specifies the minimum percentage of qualifying value content of the Free On Board (FOB), whether using the build-up method or the build-down method. Build-down method focuses on the percentage of non-originating components, whereas the build-up method focuses on the percentage of originating components in a product.

  (a) Build-Down formula: based on the value of non-originating materials:
  {QVC= (FOB Value-Value of Non-Originating materials)*100/ FOB Value}

  (b) Build-up Formula: based on the value of originating materials:
  {QVC= (Value of originating materials)*100/ FOB Value}

- Melt and Pour: it is a method where the product must have been melted and poured, the raw material into the first produced product, for example, an iron or steel-making furnace in a liquid state, and then poured into its first solid shape.

- **Chemical Reaction / Substantial Transformation:** For certain goods (chemicals, pharmaceuticals, plastics), FTAs may require that a chemical reaction or substantial manufacturing change occur. This explicitly excludes the trivial mixing or blending of chemicals from qualifying as origin. A chemical reaction is a process (including biochemical form) which results in a molecular formula with a new structure by breaking intramolecular bonds and forming new intramolecular bonds or by creating a spatial arrangement of molecules. The product-specific rules might say, for example, if the production involves a chemical reaction where the input substances are entirely converted. Chemical Reaction Rules as one type of criteria, which highlights that such reaction rules exist in practice for trading commonly used or known chemicals (having industrial production).

- **Other Methods:** Some FTAs may also allow alternate criteria like a maximum percentage of non-originating materials (de minimis), or treat certain categories like evaporators, fuel, energy, etc., by specific drafted rules.

12.4 PSR Formulation Factors

When formulating PSRs, policymakers need to consider: the complexity of the product's manufacturing, existing global manufacturing norms, environmental concerns, the competitiveness of domestic industries, and the degree of processing needed. The rule should be strict enough to ensure genuine transformation, but not so strict as to make its compliance impossible. For example, imposing a high RVC on labour-intensive products might fail because there is higher value addition is in machinery or technology rather than by labour. Thus, it is crucial to analyse actual production costs (labour vs material) to set an appropriate value-add threshold.

PSRs may also reflect political compromises depending on conditions. A country might agree to a simpler CTH rule for certain products in exchange for concessions on another product. In any case, *Product-Specific Rules* are required to be tailored to specific goods so that the origin determination reflects real manufacturing processes.

12.5 Role of Product Processing in PSR

PSRs essentially encode how much local processing is required for the product. If a PSR demands a tariff shift, it assumes that sufficient processing has occurred to change the classification. If it demands RVC, it is assumed that a certain local value proportion is considered. Hence, product processing is at the heart of origin: the PSR says "these processing steps or value-adds are needed for determining the origin of the item."

For example, in textiles, a PSR might require that yarn (2-digit chapter 52 or 54) become fabric (heading 60) in that FTA partner country. In the automotive sector, it might require that an engine (6-digit) to be manufactured from various parts (of different HS codes) with at least 35% regional value addition. These rules ensure that, say, a foreign car manufacturer can not simply import all parts, even if they are loosely assembled and claimed as an originating product - there must be meaningful and valuable work done locally on that product.

12.6 Substantial Value Addition and Rule Examples (CTC + VA, Chemical Reaction)

To exemplify: Many FTAs often combine a tariff change rule with a value-added rule. For example, the India–ASEAN FTA used "Change in Tariff Chapter (CTC) plus 35% value-added" for certain products. An automotive part might have to originate (CTC), and the items have 35% of their value addition coming from

ASEAN countries. This ensures both classification change *and* substantial local content in the exported items.

Chemical Reaction Example: Suppose a dye is made by chemically combining two imported precursors called dye-intermediate. A PSR might require that a chemical reaction occur in the partner country with in the chemical reaction rule. This explicitly tests that the inputs have been transformed into a new product, rather than just mixed, which requires audited documentation of test reports, reaction process in the industrial equipment. The Chemical Reaction Rules enumerates as a recognized origin method for chemical products. For instance, a PSR for synthetic fibres might defines as, the fabric must originates if it is produced by polymerization or polycondensation in the FTA country.

Wholly Obtained Example: Natural raw products are simple to identify as wholly obtained: e.g., an FTA would list that earth minerals, crops that are entirely sourced in one country are originating goods. No value-add test required in this case. This is often mentioned in a standard annexures list (e.g. wholly obtained products list in the India–UAE CEPA).

To summarise, the Rules of Origin combine all elements like *wholly obtained*, *tariff shift*, and *value-added* to define the origin of an item. Most FTAs tailor these in PSRs so that the required processing matches typical/ general production procedures. Therefore, exporters must meet those criteria (often documented via certificates of origin) to claim FTA duty preferences. Chapters 8–10 of this book has discussed how these origin rules interact with tariff concessions and industry analysis. Ultimately, effective ROO is designed, that ensures only genuinely regional products enjoy the liberalized rates and prevent the repackaging and branding practices.

Chapter 13: Conclusion

Free Trade Agreement is a powerful instrument for opening up global markets and fostering economic connections. This book tried to examine all the possible theories and the current global practices of agreements with a worldwide perspective, giving special attention to the national strategy and objectives. Therefore, it can be witnessed that such agreements are much more than just a reduction in tariff rates. It may comprehend complex rule-making on goods classification, origin specification, types of services offered, and regulatory standards. This can be seen in recent Free Trade Agreements of countries like India engaging with the UAE, ASEAN, the Republic of Korea, Japan, the EU, and the UK, which illustrate both opportunities and challenges.

Looking ahead, as the global trade landscape continues to evolve. Mega-regional agreements like the Regional Comprehensive Economic Partnership (effective from 2022, which India did not join as a strategic decision) and India's ongoing negotiations like India–EU, India–US, and recently signed India–UK indicate that FTAs remain very much in play, today and in future. The Government of India's policy is to pursue comprehensive agreements that unlock market access while safeguarding the domestic industry's interests. For example, in the India–UAE CEPA negotiations (in force from May 2022), here India secured interests of the domestic industry by phased tariff elimination on crucial exports while protecting the sensitive items/products.

The chapters on HS Codes classifications and Rules of Origin remind us that behind every headline agreement lies an intricate technical drudgery. The uniform 6-digit HS codes enable representatives from different countries to "speak the same language" on goods. Carefully crafted origin rules ensure that the trade preferences benefit only the true domestic products. For policymakers and Industry stakeholders, it is evident to note that a detailed analysis of tariffs, domestic production, and value chains (as mentioned in this book) is essential to making beneficial trade-offs.

Finally, FTAs are not an end in themselves, it is just a step for broader goals for example, an increase in exports, greater investment, economic boost, and job creation. Currently, developing countries like India are expanding their FTA network to integrate their economy with global value chains and diversify markets. By following the strategic principles and procedural steps as mentioned in this book, decision-makers can negotiate FTAs in a manner that maximise gains (opens maximum market opportunities), opening new avenues for domestically

manufactured goods and services in the partner country, while nurturing domestic industries at home.

Sources: *Data and information is obtained from official documents of WTO, WCO, various government websites (e.g. Ministry of Commerce and Industry Government of India, Press Information Bureau, Office of the United States Trade Representative (USTR), Ministry of Industry and Trade Government of Vietnam, etc.), as well as data and info analyses, which have been cited throughout to ground this book as authoritative information. These include WTO reports, national trade reports, various existing FTAs, and policy documents on tariff and origin issues.*

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