Chapter 1

Introduction

1.1: Introduction

Preferential trade has two dimensions: unilateral, like the Generalised System of Preferences (GSP) schemes, whereby developed countries unilaterally grant tariff preferences to developing and less developed countries, and reciprocal, as in contractual trade agreements between two or more countries. This study deals with reciprocal trade arrangements whereby tariff concessions are exchanged between countries on bilaterally traded products. The World Trade Organization (WTO)\(^1\) employs an umbrella term for such trade agreements: Regional Trade Agreements (RTAs). Since many of such arrangements are not strictly within a region (e.g. India’s trade agreement with Chile) some studies refer to the whole gamut of such arrangements simply as PTAs: Preferential Trading Arrangements/Agreements/Areas. In the literature PTAs and RTAs are used interchangeably. In this study the acronym PTAs is mainly used.

A striking development in the recent history of world trading system has been the unprecedented surge in PTAs. The march of regionalism through establishment of bilateral or regional PTAs, in contrast to multilateralism under WTO, has generated a debate in its wake. First, there is a debate amidst economists on the welfare effects of such discriminatory trade arrangements: the question is whether such PTAs will result in more ‘trade creation’ or more ‘trade diversification’ (Viner 1950, Meade 1955, Lipsey 1970, Grossman and Helpman 1995, Bhagwati and Panagariya 1996b). There is also a debate whether PTAs are effective tools of trade liberalisation: the question here is whether PTAs are ‘building blocks’ or ‘stumbling blocks’ to multilateral trade

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\(^1\) WTO: World Trade Organization was established on January 1st, 1995 to replace GATT (General Agreement on Tariffs and Trade) as the legal and institutional foundation of the multilateral trading system.
liberalisation under WTO (Bhagwati 1991, Baldwin 1993, Levy 1997, Krishna 1998, Estevadeordal et al. 2006). The debate on these issues are far from being resolved as some studies show one effect while others prove just the opposite. There is a relatively small, yet growing, branch of recent literature (Hayakawa et al. 2009, Takahashi and Urata 2010, Kawai and Wignaraja 2011), which focus on the effects of PTAs on the trading community, as they are the ultimate beneficiaries of preferential schemes. The growing number of PTAs has also brought to the fore the role played by Rules of Origin (henceforth RoO) in these agreements and there is a general consensus in the literature on their discriminatory effects. RoO are the rules that need to be fulfilled by a traded product to get concessions under any PTA. They are negotiated during the drawing of a trade agreement. They are important as they determine which products will get preferences and which will not, thereby becoming gatekeepers of PTAs. There is a growing consensus in the literature that these RoO instead of just fulfilling the role of supporting a commercial policy instrument (i.e. exchange of preferences in PTAs) have become commercial policy instruments themselves (Krueger 1993, Falvey and Reed 2002, Brenton and Manchin 2003, Estevadeordal and Suominen 2004a, Estevadeordal and Suominen 2004b, Krishna 2005). RoO are also needed with respect to non-preferential trade for marking and labelling requirements, collection of trade statistics and other trade policy measures like anti-dumping duties. In this thesis the focus is only on preferential RoO.

Following the global trend, India too has signed many PTAs in the last decade. There are fourteen PTAs in operation, at the time of writing this, with twenty four countries, mostly with neighbouring countries in South and South East Asia. Given the march of regionalism in the Indian trade policy landscape and the debate surrounding the effects of PTAs in the global landscape, the study here evaluates the effectiveness of PTAs as trade liberalisation tools in the Indian context. This thesis also looks into the role played by RoO in such liberalisation. Such a study is important as a comprehensive evaluation of current PTAs will help in future trade negotiations.

The next section gives the review of literature on PTAs and RoO therein. After discussing the literature, Section 1.3 presents the relevant issues for the study and Section 1.4 spells out the specific objectives. Section 1.5 explains the methodology, data source and time period of analysis. The last section presents the chapter scheme.
1.2: Review of Literature

In the following two sections the literature is discussed pertaining to PTAs and RoO therein. Sub-section 1.2.1 discusses the trajectory of PTAs as they have emerged worldwide and then gives a brief review of relevant literature, along with a discussion of their effects. Sub-section 1.2.2 reviews the literature on RoO. Sub-section 1.2.3 identifies the gaps in the literature.

1.2.1: PTAs: A Review of Literature

PTAs have generated considerable academic interest over the last two decades. The literature on them are discussed under two sub-headings: the literature which asks “why PTAs?” and the literature which asks “what effects?” The next section analyses the trajectory of PTAs as they have emerged worldwide, their types and the reasons behind their sudden increase in recent times. Sub-heading 1.2.1.2 discusses the theoretical literature on effects of such regional integration initiatives.

1.2.1.1: Emergence of Regionalism in World Trade

The European Economic Community (EEC), which was formed in 1957, was one of the first PTAs to come into force (1st January 1958). It acted as a precursor to a few PTAs in Africa and Latin America. Though EEC became a success, the other PTAs could not flourish much. This was mainly because of America’s loyalty to multilateralism. Formation of EEC actually induced the United States (US) to push for multilateral tariff cutting in the Kennedy round of GATT. As EEC preferences harmed the export prospects of US firms, the only way to redress it was through multilateral liberalisation (Baldwin 1997). Having witnessed the pernicious effects of discriminatory trade regimes during the Great Depression of the 1930s, America had emerged as the champion of a non-discriminatory global trade regime, grounded firmly in the most-favoured-nation (MFN) principle of GATT. However, this policy changed when unable to persuade the European Community (EC) to join the

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2 GATT: General Agreement on Tariffs and Trade was formed in 1947. To do away with the protectionist influences on world trade, that plagued the inter-war period, an international trading order through GATT was established at the end of the Second World War. It was updated to GATT 1994 and incorporated into WTO from 1st January 1995.

3 Article III of GATT (and then WTO) declares as a fundamental principle that market access should be extended to all members on a most-favoured-nation (MFN) or non-discriminatory basis.
multilateral agenda, the US felt obliged to abandon its long-standing opposition to regional arrangements. It went on to conclude a FTA with Israel in 1985 and with Canada in 1989. The North American Free Trade Association (NAFTA) between America, Canada and Mexico was created in 1994. Side by side, the EC continued its expansion, adding more members under its aegis. The EEC was renamed EC with the signing of the Maastricht Treaty in 1992 by which it became a Common Market from 1993. The EC has now become an Economic Union, the European Union (EU), with the introduction of the common currency, the Euro, in 1999. The deeper integration in the EC and the establishment of NAFTA led to a ‘domino effect’ of renewed interest in PTAs (Panagariya 1999). The regionalism of the 1990s is referred to as the second wave of regional initiatives, or the ‘new regionalism’ to distinguish it from the first round of PTA formations that happened as after-effects of the EEC. Figure 1.1 shows the significant increase in the number of RTAs entering into force from the mid-nineties (since WTO calls preferential initiatives RTAs here this acronym is used). The continuity of such a trend in recent years is also clear from the graph. Prior to mid-nineties, only a few RTAs came into force in some years, with many years having no new RTA formation. The WTO database on RTAs states that in the period between inception of GATT and WTO formation (1948-1994), the GATT received 123 notifications of RTAs (mainly covering trade in goods). In contrast, since the creation of the WTO in 1995, over 300 additional arrangements covering trade in goods and/or services have been notified in the last 15 years.

RTAs explicitly deviate from the principle of non-discrimination, which is the cornerstone of GATT (and the WTO). However, WTO members are permitted to enter into preferential trade arrangements under special sets of rules: Article XXIV of GATT provides for the formation and operation of Customs Unions and Free Trade Areas covering trade in goods; Enabling Clause refers to preferential trade

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4 Baldwin (1993) coins this term when he analyses the incentive of non-members to join any given PTA. He constructs a model to demonstrate that the incentive to join an PTA will be positive as the PTA will create a “domino effect”, with outsiders wanting to become insiders on an escalator.

5 The ‘new regionalism’ differs from the first wave of regionalism, ‘old regionalism’, of the late 1950s and the 1960s, as it goes beyond the tariff preference exchanges in goods, covers the entire globe rather than only one region and has a growing inter-regional dimension (i.e. the PTAs are no longer between countries of the same region) (Busse and Koopmann 2002).


7 WTO members are bound to notify the RTAs in which they participate.
arrangements in trade in goods between developing country Members; and Article V of GATS governs the conclusion of RTAs in the area of trade in services, for both developed and developing countries.

Figure 1.1: Number of RTAs entering into force over the years

Source: Author’s calculation based on the WTO RTA-IS database.

RTA members are supposed to notify their agreements to the WTO. As of 15 May 2011 about 489 RTAs were notified to the WTO and about 297 of them were in force. Of all the RTA notifications to WTO, 358 were notified under Article XXIV of GATT 1947 or GATT 1994, 36 under the Enabling Clause, and 95 under Article V of the GATS.
With preferential agreements becoming so ubiquitous, the default question nowadays is why a preferential agreement does not exist for a country, rather than why such an agreement should exist. All WTO members, with the exceptions of Mongolia and Mauritania, are part of at least one RTA. On an average, as the WTO RTA-IS (RTA Information System) database\(^8\) shows, countries are party to six RTAs, with countries in Europe being engaged in as many as twenty nine RTAs.

PTAs can be of various types depending on their degree of integration. Classified this way there are five tiers or stages of PTAs as shown in Figure 1.2. Preferential Trade Agreements (PTAs) are the first tier arrangement, where trading partners grant partial tariff reductions to each other. The second tier is the Free Trade Area (FTA)\(^9\) in which members eliminate all tariffs among themselves, but each member retains its own tariff rates on imports from non-members. Members of a Customs Union (CU) go beyond a FTA and set a common level of tariffs vis-à-vis non-members. Together these three stages of regionalism are known as ‘shallow integration’ (Lawrence 1996).

The fourth tier is a Common Market, which attempts to harmonise some institutional arrangements, commercial and financial laws and entails free movement of goods, services and factors of production. The last tier is the Economic Union and goes a step ahead of the free movement of goods, services and factors. It involves integrating national economic policies, including taxes and a common currency (Das 2001). In the global network of PTAs shallow integration is far more common than deep as is evident from the fact that a large majority of the existing PTAs are FTAs. However, many authors note that one of the major benefits of regionalism is the potential for “deeper integration” (Baier and Bergstrand 2005).

The WTO, on the other hand, classifies RTAs into FTAs and CUs in the area of trade in goods; Economic Integration Agreements (EIAs) in the area of trade in services; and partial scope arrangements, which are RTAs among developing countries. RTAs among developed countries tend to be more far-reaching than those amidst developing countries and hence the name. FTAs, EIAs and partial scope arrangements account for

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\(^9\) The terms Free Trade Area and Free Trade Agreement, both of which are abbreviated by FTA, are used interchangeably in general practice and is followed here.
about 90 per cent of all RTAs, while CUs account for roughly 10 per cent. As many of the PTAs in recent times cover both trade in goods and in services, they are usually named as comprehensive agreements e.g. the Comprehensive Economic Cooperation Agreement (CECA) between India and ASEAN.

Figure 1.2: Types of RTAs

Source: Das (2001).

1.2.1.2: Trade Theories in the context of PTAs

The main contributions in theoretical literature on PTAs as it has evolved over the years is summarised in Table 1.1. Following the theory of gains from free trade, it was traditionally believed that PTAs will generate gains from trade as member countries eliminate trade barriers among themselves allowing consumers and producers to
purchase from the cheapest and most competitive source of supply, which in turn enhances efficiency and increases welfare. However, the theoretical discourse on PTAs starts in variance to this assumption. Viner (1950) introduces the concepts of ‘trade creation’ and ‘trade diversion’, two opposing welfare effects that come to play with formation of a PTA, and shows that the net effect of trade liberalisation on a regional basis is not unambiguously positive. PTAs can result in ‘trade creation’ if, due to the formation of the regional agreement, the members switch from inefficient domestic producers and import from efficient producers of other PTA members. In this case, efficiency gains arise from both production efficiency and consumption efficiency. On the other hand, ‘trade diversion’\textsuperscript{10} takes place if, because of the PTA, members switch imports from low-cost producers in the rest of the world to higher-cost producers within the region. ‘Trade diversion’ lowers welfare of not only the partner countries but also of the rest of the world.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Analysis</th>
<th>Main contribution</th>
</tr>
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<tbody>
<tr>
<td>Viner (1950)</td>
<td>Static</td>
<td>FTAs not necessarily welfare improving: they can be ‘trade creating’ or ‘trade diverting’</td>
</tr>
<tr>
<td>Kemp-Wan (1976)</td>
<td>Static</td>
<td>Necessarily welfare improving CUs possible</td>
</tr>
<tr>
<td>Grossman-Helpman (1995)</td>
<td>Static</td>
<td>Political economy of PTAs focussing on incentives to form such PTAs</td>
</tr>
</tbody>
</table>

Source: Author following Bhagwati (2008)

A World Bank (2000) study illustrates the ‘trade diversion’ effect with an example. Suppose an imported good from a partner country costs $105 per unit, $100 from the

\textsuperscript{10} If more expensive local inputs are substituting cheaper non-member intermediate imports it is termed as \textit{trade suppression} and if more expensive partner inputs are substituting cheaper non-member intermediate imports it is termed ‘trade diversion’ (de la Torre and Kelly 1992).
rest of the world (ROW) and that in both cases MFN duty is $10, making the prices paid by consumers $115 and $110 respectively. In this situation, imports are obviously from the ROW at $110. Say now the country forms a PTA with the partner and imports of this good is made duty-free under such an arrangement, so that the price consumers pay for imports from the partner country falls to $105, while imports from the ROW still cost $110. Consumer choices are obvious: they switch to the partner country, buying the $105 good and saving $5. But the government now loses $10 per unit (the revenue it was getting on each unit of imports from the ROW), so the net effect for the country is a loss of $5. Thus the PTA has reduced real income. This is the deleterious welfare effect of ‘trade diversion’.

Is a particular PTA ‘trade creating’ or ‘trade diverting’? The answer, reasons Viner, depends on who the pre-PTA supplier was. De Melo and Panagariya (1993) give a good example of shoe production in the context of a US-Mexico FTA11. If the US produced its own shoes before formation of the FTA and afterwards shifts to Mexico, then the Mexican shoe producers must be the lower cost producers and hence this FTA is ‘trade creating’: the welfare of the union and the rest of the world rises. If on the other hand, the US imported shoes in the initial equilibrium from another country, that country must be a lower cost producer of shoes than Mexico. There is thus ‘trade diversion’ from a lower to higher cost source as after the FTA US shifts its demand for shoes to Mexico: welfare of the union and the world declines.

Viner does not unequivocally establish the net welfare effect of PTAs. Kemp-Wan (1976), differing from Viner’s study, shows that a necessarily welfare improving Customs Union can always be constructed. However, as Bhagwati (2008) points out, it is really a “possibility theorem”. Grossman-Helpman (1995) are the first to look at the politico-economic rationale for forming a PTA and finds that the “conditions that enhance the viability of a potential agreement also raise the likelihood that the agreement would reduce aggregate social welfare” (pp. 687). Their study thus shows that ‘trade diversion’ provides a principal motive for forming PTAs.

There is a big debate among the trade theorists and empiricists about the relative dominance of these two effects. Some studies show that the balance between ‘trade creation’ and ‘trade diversion’ is more likely to favour ‘trade creation’, if MFN tariffs

11 US-Mexico FTA was later converted to NAFTA at Canada’s insistence (Baldwin 1997).
before the formation of the PTAs are low (Meade 1955); if member countries of the PTA are already large trading partners (Lipsey 1970); and if transportation costs are low (Summers 1991). However, according to Bhagwati and Panagariya (1996a) if members of the regional trade agreement are small in relation to the outside world, very little ‘trade creation’ will take place and ‘trade diversion’ is likely to be the more dominant effect. As Baldwin (1997) noted, the debate on RTAs may be divided between the Larry Summers school (Summers, 1991) and the Jagadish Bhagwati school (Bhagwati and Krueger 1995); the former school looks at regional (i.e., discriminatory) liberalisation and sees only liberalisation, whereas the latter school sees only discrimination. Despite the debate, RTAs are the current reality of the global trading order with all but two members of WTO (Mauritania and Mongolia) being engaged in at least one regional integration initiative.

Empirical studies undertaken do not entail any definite conclusion on the net welfare effect (Pomfret 1988). The World Trade Report (2003) states that the evidence drawn from econometric analysis produces different results for different PTAs in this regard and a general conclusion cannot be drawn. However, it has to be kept in mind while ascertaining welfare effects in PTAs that the concepts of ‘trade creation’ and ‘trade diversion’ are static concepts. Entering into a RTA can have dynamic effects too. Dynamic effects include market expansion effect i.e. the achievement of economies of scale and the ability to choose the best locations for production and distribution as trade barriers are removed and markets expand. The competition enhancement effect is another type of dynamic effect. It refers to the facilitation of efficient production because companies with oligopolies in the region are made more competitive by market integration (Urata 2002). Other dynamic effects include accommodating specialisation and division of labour, promoting technical efficiency and terms of trade effects.

Both at the theoretical and empirical level, economists are also divided over the desirability of PTAs in a multilateral trade regime. Some envisage PTAs as ‘stumbling blocks’ to multilateral trade liberalisation whereas others contend that they can act as ‘building blocks’. The question whether PTAs are building blocks or stumbling blocks is first raised by Bhagwati (1991) who thus introduces the dynamic

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12 The terms of trade of members are improved due to their increased influence over non-members as a result of the greater volume of trade between member nations party to a FTA.
analysis of the topic as opposed to the static analyses of ‘trade creation’ and ‘trade diversion’. The author formulates the dynamic time path question as whether with time PTAs affect multilateral trade liberalisation under WTO. In a later paper with Krueger (Bhagwati and Krueger 1995) it is stated that PTA formations result in the emergence of a hub-and-spoke pattern of international trade involving greater dominance of ‘peripheral’ countries by ‘core’ powers, and a reduced incentive to follow the multilateral route to free trade. Following this argument PTAs are envisaged to be ‘stumbling blocks’ to multilateral trade liberalisation. Levy (1997), using a Krugman (1980) type of a model i.e. trade under monopolistic competition, demonstrates that a PTA can turn into a ‘stumbling block’ to global free trade. He shows, using a median voter model, regional blocks neither hinder nor promote global free trade in a Heckscher-Ohlin framework but weakens the political support for multilateral tariff liberalisation in an increasing-returns-to-scale set up. Krishna (1998) uses a partial equilibrium model to prove the ‘stumbling block’ argument. Limao (2006) empirically tests the argument in the context of US PTAs and finds that indeed MFN tariff cutting has been low in products which were traded preferentially, implying preferential liberalisation is a ‘stumbling block’ to multilateral trade liberalisation. Estevadeordal et al. (2006), on the other hand, empirically finds the opposite in case of Latin American countries. Baldwin and Seghezza (2007, p. 12) from their examination on tariff line data across many nations find that MFN and PTA tariffs are complements and not substitutes, thereby proposing “…regionalism is neither a building nor a stumbling bloc”. Baldwin (2011) states that both Vinerian analysis and analysis of PTAs as ‘building/stumbling blocks’, is no more relevant in the 21st century regionalism as today PTAs go beyond tariff cutting in trade in goods and incorporate a whole array of components, like liberalising trade in services, investment cooperation etc. Even after many years of debate, no consensus has been reached on this issue either theoretically or empirically. However, regionalism, with its advantages and drawbacks, is a reality of the current global trade regime and cannot be ignored despite the criticisms.

The incentives to forge such PTAs are also discussed in the literature though there is a debate on the reasons behind the recentness of such arrangements. Three general

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13 It is a 2x2x2 model where factor proportions vary between countries and form the basis of trade. The production technology was assumed by Heckscher-Ohlin to exhibit constant-returns-to-scale.
objectives are widely accepted for forging regional alliances: to promote economic co-operation among the countries forging the regional alliance; to build a sense of security to facilitate political harmony within a region; and for the nations to achieve international competitiveness in a globalised era. These general reasons give politico-economic rationale for establishing PTAs but they cannot explain the recentness of such agreements. According to many economists, like Bhagwati (1994), Krugman (1993) and Panagariya (1999), proliferation of PTAs in recent years is due to the slow progress of GATT/WTO, witnessed in long-drawn out rounds and also the bitterness in negotiating issues between the developed and developing nations, as seen in the Doha Development Round. This may have led to the forging of more regional partnerships to liberalise trade in recent times. Refutation of this argument that ‘new regionalism’ has stemmed from frustrated WTO talks is found in Baldwin (1997) where the author notes that GATT/WTO rounds have traditionally been long-drawn out. So, according to him, slow progress under GATT/WTO is not the catalyst for ‘new regionalism’, rather a ‘domino effect’ explains the new bandwagon of regional initiatives. It was the regionalism in the EC and the US that actually had a ‘domino effect’ on other countries to follow suit as countries do not want to be left out of the PTA bandwagon as they fear that otherwise they will lose out on market access.

Effects of PTAs are empirically analysed using gravity models, which have generally shown increase in bilateral trade due to PTAs (Frankel 1997, Martinez-Zarzoso and Nowak-Lehmann 2003, Feenstra 2004). With the advent of multi-country, multi-sector computable general equilibrium (CGE) models, techniques available for analysing PTAs have improved substantially. These models can be used to predict the impact of a PTA on an economy-wide basis: they can evaluate the production, employment, consumption, trade, price and welfare effects of the formation or the expansion of an PTA. General conclusion from studies using CGE models say that formation of an PTA leads to more ‘trade creation’ than ‘trade diversion’, and also welfare effects increase for all members in an PTA (Robinson and Thierfelder 2002). But there is again a debate on the use of CGE models to study PTAs as they have poor econometric foundations (Hertel et al. 2007).

14 The basic gravity model of trade predicts bilateral trade flows based on the economic sizes of two countries (their GDP, population) and the distance between them.
Utilisation of tariff preferences by firms is another area where some empirical work has been done. When preferential trade data is available readily, utilisation by exporters can be found as in Cadot et al. (2002, p. 13) where the authors calculated the average utilisation rate for NAFTA in 2000 as 64 per cent. Inama (2003) calculates utilisation of GSP schemes by using UNCTAD percentage ratios (product-coverage, utilisation and utility ratios) and finds that only 39% of eligible products entered the Quad countries from developing beneficiary nations under GSP. Primary surveys have also been undertaken by some authors to ascertain use of PTAs by the traders. These studies find that utilisation of most PTAs involving developing countries are lower compared to developed country PTAs e.g. 17%-25% of the firms in South East Asia use FTAs (Kawai and Wignaraja 2011) and 12%-33% of the Japanese companies use the various FTAs with the developing countries (Takahashi and Urata 2010). Almost all studies point to the restrictive role of RoO, which they say deters the use of PTAs.

1.2.2: Rules of Origin: A Review of Literature

The trade literature on PTAs is vast and growing. A recent branch of this literature points to the role that RoO play in such PTAs. The debate on them unfolds in the following sub-sections: the next section gives an introduction to RoO by discussing the concept of RoO; the section thereafter details the measurement technique of RoO i.e. the methods that determine ‘origin’; section 1.2.2.3 discusses the relevant literature.

1.2.2.1: RoO: The concept

RoO are the criteria used to define where, i.e. in which country, a traded product is made. They are an essential part of trade rules. RoO are applied in both preferential and non-preferential trading regimes. Non-preferential RoO are used for implementing measures and instruments of commercial policy (like anti-dumping duty), compiling trade statistics, labelling and marking requirements, and government procurement. Each of these trade regulations involves distinguishing domestic from foreign goods, or distinguishing among foreign goods. Preferential RoO, which is the

15 Quad countries is the term used at WTO to refer to the four major industrialised economies viz. EU, US, Canada and Japan.
main concern of this work here, are used to determine whether an imported product will pay MFN tariffs or preferential tariffs in any preferential trading arrangement. A good is eligible for zero or reduced tariffs in an importing member of a PTA only if it originates in any exporting member of the PTA. RoO in a preferential trade arrangement make sure that intended trade benefits of the arrangement, such as tariff concessions, are enjoyed only by products ‘originating’ in member countries. They have another important role in the functioning of PTAs, especially in FTAs, where they are instrumental in checking trade deflection. In a FTA, members maintain their own external tariffs, unlike CUs and deeper integration PTAs. Hence, tariffs may differ between member countries. In this setting, in the absence of RoO, any particular commodity can enter the country with the lowest duty on it and get re-exported to other countries in the FTA to take benefit of the tariff differential. This is known as trade deflection. The possibility of such trade deflection in FTAs is pointed out in Shibata (1967). RoO prevent such simple transhipment of goods by requiring products to ‘originate’ in exporting member countries. RoO (hereby RoO will imply preferential RoO only, unless otherwise specified) have been the subject matter of intense debate and research in recent years because of their protectionist nature, discussed in section 1.2.2.3. In the next section the focus is on the methods that comprise RoO across different agreements.

1.2.2.2: RoO: The methods

Resolving the issue of ‘origin’ for primary goods is fairly straightforward. If such goods are ‘wholly obtained’ in the territory of the exporting country (including its territorial waters), it is clear that they ‘originate’ in that country. By extension goods that are made entirely from primary inputs originating in a country can themselves be considered as ‘originating goods’. However, as a result of globalisation of production process, many manufactured commodities today incorporate inputs produced in a wide variety of countries. In such cases ‘originating’ status is accorded to that country where the product underwent ‘substantial transformation’. ‘Substantial transformation’ is something that imparts to the product its essential characteristic. The Kyoto Convention\(^\text{16}\) of 1973 laid down the general principles for ‘substantial

\(^{16}\) To ensure simplification and harmonisation of customs procedures and to facilitate its practical application, the Kyoto Convention was organised in 1973 by the Customs Co-operation Council.
transformation’. Following the Convention, ‘substantial transformation’ is ensured by fulfilling one of the following criteria:

*Change in tariff classification rule (CTC)*: if because of processing done in a country, a final product gets classified under a different heading of the customs tariff classification (the Harmonized Commodity Description and Coding System - HS\(^{17}\)) than the imported intermediate inputs used in its making, then the product may be claimed to be ‘originating’ in that country. The HS trade classification of products is explained in details in Appendix 1 (page 126). HS classifies products into Chapters (assigned a 2-digit number), Headings (assigned a 4-digit number), and Items (assigned a 6-digit number). All countries using HS have the same product classification till this 6-digit. After this, countries can add 2 or 4 more digits to identify a product more specifically. An example is tomato juice: it is assigned HS code 20095000 in India’s tariff schedule, which follows an 8-digit HS classification: of this number the first two digits imply chapter – 20 (preparations of vegetables, fruits and nuts), and the first 4 digits imply heading – 2009 (fruits juices). For all countries using HS, tomato juice will be assigned the same first 6 digits – 200950. So, for example if RoO requires a change in heading i.e. a change in the 4-digit level, then imported preserved tomatoes (HS heading 2002) can be used to prepare tomato juice (HS Heading 2009). If, however, RoO requires a change in the chapter level i.e. a change in the 2-digit level, then imported tomatoes that are preserved cannot be used as both imported input and final product have the same HS chapters (Chapter 20). Thus following a chapter based RoO the final tomato juice will be originating in the exporting country if only domestic tomatoes are used.

*Value added rule (VA)*: requires that a minimum percentage of value to be added to the product in a country for the claim of origin from there (*domestic content*). This rule is also known as Regional Value Content (RVC) criterion, the Domestic value added (DVA) or simply the Value Added (VA). It is also known as the percentage test. It can also be calculated as an allowed maximum percentage of value added by materials of foreign origin (*import content*). Each PTA specifies which method of calculation will be applied. The *domestic content* method is used as a test by US for

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\(^{17}\) HS: Harmonized Commodity Description and Coding System is a coded classification of traded products, managed by the World Customs Organization. The classification is based on the nature of the commodities and first came into use in 1988. It is used by 206 countries and economies for their customs purpose.
its PTAs whereas the *import content* method is used by the EC. The value added test is also sometimes expressed as a minimum percentage of the value of the parts from the originating country, as in some product specific cases in EC (Vermulst 1992). Even though they mean the same thing, the domestic content variant requires an analysis of production costs whereas the import content does not. Thus formulation of the VA rule based on *domestic content* is considered to be more restrictive than a specification based on the *import content*.

*Technical requirement rule (TECH):* sets out certain production activities that may (positive test) or may not (negative test) confer ‘originating’ status to a product. For example, for semiconductors the process of diffusion, or wafer fabrication, has to be performed in the EC for integrated circuits to be considered of local origin. TECH rules are drawn separately for different products and thereby also known as Product Specific Rules of Origin (PSRO).

These three rules can be used individually or in combination to determine ‘origin’ of a traded product. There are no common RoO in PTAs across the globe. Though the above three criteria give some guidance, each country has the freedom to choose its own set of RoO for its PTAs. For example, ASEAN Free Trade Area (AFTA) applies only the RVC criterion across all products. India, in its initial PTAs, negotiated for a twin criterion: “VA + CTC at 4-digit HS”. NAFTA applies all the three rules in different combinations. A country can also define different rules for its different PTAs resulting in a “spaghetti-bowl” effect. This complicates international trading, as a good that satisfies origin in one country, would not do so in another. There are some steps taken towards harmonisation of non-preferential RoO under the WTO (the Harmonization Work Programme is still going on). However, this harmonisation programme leaves out preferential RoO.

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18 Bhagwati (1995) compares the overlapping PTAs with a “spaghetti bowl”. The complex RoO of such overlapping arrangements is compared in Bhagwati (2008) as the “mess created for the tie and shirt of the person eating the spaghetti”.

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Figure 1.3: The 3 variants of RoO – Examples

<table>
<thead>
<tr>
<th>Imported raw materials + Domestic raw materials</th>
<th>Manufacturing process</th>
<th>Final product</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Imported cotton fabric + Domestic raw materials</td>
<td>Cotton shirt</td>
<td></td>
</tr>
<tr>
<td>(HS 5208, $13)</td>
<td>(HS 6105, $20)</td>
<td></td>
</tr>
<tr>
<td>RoO: Change in tariff classification at the heading level satisfied</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RoO: VA of 50% not satisfied [($20-13)/$20]*100 = 35% VA]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. RoO: TECH not satisfied if TECH = yarn forward rule</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Imported doll accessories + Domestic raw materials</td>
<td>Doll</td>
<td></td>
</tr>
<tr>
<td>(HS 9205, $5)</td>
<td>(HS 9205, $10)</td>
<td></td>
</tr>
<tr>
<td>RoO: CTC at the heading level not satisfied</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RoO: VA of 50% satisfied [($10-5)/$10)*100 = 50% VA]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s depiction, following examples given in Brenton (2003).

How these rules affect a product’s ability to get preferences is given in Figure 1.3. The schematic diagram follows the examples in Brenton (2003), where he shows that RoO of 40 % VA rule may not be satisfied by a garment manufacturer in a developing country if he/she uses imported fabric in the manufacture of apparel, even though it satisfies the CTC rule (of change in tariff classification at the 4-digit heading level). This is because fabric makes up the major value of any apparel. Moreover, if a yarn forward rule i.e. a TECH requirement is there, as is the case with EU’s preferential schemes, any apparel has to be made from yarn itself in the exporting country if preferences are to be got. Thus even import of fabric is not allowed under such a technical specification rule. RoO for apparel in US is even more stringent in requiring
the cloth to be made from cotton itself, implying that spinning and weaving also have to be done in the exporting country to get originating status. Again, if a doll is made in a country and is clothed in imported doll clothes it does not satisfy the CTC rule as both the doll and the garments and accessories for the doll are under the same HS heading, even though it easily satisfies the VA rule.

RoO maybe set up stringently to restrict trade e.g. with CTC rule there is the issue of the level of classification at which change is required - higher the level of change required, the more restrictive effect it will have. Most agreements specify that the change should take place at the heading level of the HS (4-digit level). However, in NAFTA, RoO for some products require a change at the chapter level (HS 2-digit level), which is more difficult to achieve. VA has the issue of the valuation of materials. Depending on the method of valuation chosen, the values of non-originating materials will differ e.g. f.o.b. (free on board) is a less restrictive valuation base than c.i.f. (cost, insurance and freight); an ex-factory cost basis is considered to be the narrowest valuation basis and origin rules incorporating this provision are thus more restrictive than those using f.o.b. or c.i.f.\(^\text{19}\) The setting of specific process rules (TECH), often involves the participation of local industries in providing the technical information that is required. This lets industries influence the drafting of RoO in such a way that it becomes restrictive and protects their own interests. Table 1.2 gives the relative merits and de-merits of the three rules.

Presence of other supplementary rules (like cumulation, absorption, *de-minimis*) besides the three main ones, tries to relax the stringency of a RoO regime. Cumulation provisions allow producers of one PTA member to use inputs imported from other PTA members as ‘originating’ inputs. Thus the total value of both country materials can be taken into account for the VA criterion, thereby relaxing it. Bilateral cumulation favours the use of importing partner country materials; diagonal cumulation allows use of materials from the entire preferential area; full cumulation allows any processing in any member country of the PTA to be counted as ‘originating’. The absorption rule (or roll-up principle) on the other hand, allows non-originating materials, which have acquired ‘origin’ by meeting specific processing requirements, to be counted as ‘originating’ inputs in any subsequent transformations.

\(^{19}\) F.o.b., c.i.f., ex-factory are sales contract terms used in international trade. They divide transaction costs and responsibilities between the seller and the buyer. They are explained in details in Chapter 3.
In other words, the non-originating materials are no longer taken into account in calculating the value added, thereby adding leniency to the VA rule. Tolerance or *de-minimis* rule allows use of a specified maximum percentage of non-originating inputs in the production process without affecting the ‘origin’ status of the final product. It relaxes the stringency of the CTC and TECH rules.

Table 1.2: Merits and Demerits of Different Rules of Origin

<table>
<thead>
<tr>
<th>Rule</th>
<th>Merits</th>
<th>Demerits</th>
<th>Policy dilemmas</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Change of Tariff Classification (CTC)</strong></td>
<td>Simple, clear and transparent. Easy to implement. Entails less administrative cost.</td>
<td>It fails to confer origin in several cases as the H.S. was not designed for granting originating status. On occasions, CTC does not ensure substantial transformation. Sometimes substantial transformation can occur without CTC.</td>
<td>Level of classification at which change required: higher the level the more restrictive is the rule. How to combine other rules when CTC fails. Ambiguity in several processes that cannot be captured by this rule.</td>
</tr>
<tr>
<td><strong>Percentage Test</strong></td>
<td>If defined in terms of maximum import content, it can also be implemented easily. Good complement for cases where CTC fails.</td>
<td>Complex in application – requires firms to have sophisticated accounting systems. Difficult to monitor at customs entry points. Sensitive to changes in exchange rates, labour costs, input prices, etc. High administrative costs of implementation. Prone to accounting manipulations.</td>
<td>The level of value added required to confer origin. The valuation method for imported materials – methods which assign a higher value (e.g. CIF) than ex-factory price will be more restrictive on the use of imported inputs. Calculation of value addition subject to malpractices.</td>
</tr>
<tr>
<td><strong>Specific Process Test</strong></td>
<td>Straightforward. Provides for certainty if rules can be complied with.</td>
<td>Implementation problems due to documentary requirements. Difficult to comply with. Leads to product specific rules. Depends on technology, which differs from sector to sector.</td>
<td>Difficulty in pinning down formulation of the specific processes: the more procedures required the more restrictive. Should test be negative (processes or inputs which cannot be used) or a positive test (what can be used) – negative test more restrictive.</td>
</tr>
</tbody>
</table>

Source: Compiled from Das (2010).
1.2.2.3: Literature on Preferential RoO

Literature on RoO was initially based on the content protection literature as developed by Corden (1971), Grossman (1981), Mussa (1984), Vousden (1987) and Krishna and Itoh (1988). However, adaptation of local content models to the reality of RoO needs caution as the two are technically different (Inama 2009). The literature on RoO has developed over the economic effects they cause. RoO requirements check the import content of exports thereby having the potential to generate backward and forward linkages in a country adhering to these rules. These requirements act as a deterrent to the assembly kind of production. RoO thus have important implications for the development of the manufacturing sector as a whole, which in turn contributes towards enhancing the export supply capabilities of member countries (Panchamukhi and Das 2001). However, Brenton and Imagawa (2005) argue that with globalisation and splitting up of production chains, countries do not have the luxury of setting up integrated production facilities anew to develop their manufacturing sectors. They also point out that strict RoO for the past many years have not shown any instance of generating backward and forward linkages. Instead, as Inama (2009, pp. 383) puts it, with respect to RoO of the GSP, “…RoO are frustrating the development objectives of tariff preferences”. UNCTAD Working Group on Rules of Origin also shows in its various reports that developing countries find RoO to be the main obstacle in the utilisation of GSP (UNCTAD 2003). The EU’s GSP theoretically covers 99% of EU imports from eligible countries but only 31% was utilised by exporters in those countries in 1999 (Brenton and Manchin 2003). RoO deters trade deflection. Yet they can be used in efforts which go beyond a desire to avert such trade deflection. They can have protective effects like tariffs. While analysing the determinants of the restrictiveness of the RoO, Estevadeordal (2000) shows that the same political economy factors that drive tariff protection have also driven strict RoO under NAFTA. As Estevadeordal and Suominen (2005, pp. 52) put it: “…negotiated at up to 8- or 10-digit level of disaggregation, RoO, like the tariff, make a superbly targetable instrument... the fact that RoO are generally defined in highly technical terms rather than assigned a numerical value means that they are not nearly as immediately quantifiable and comparable across products as the tariff is... RoO are widely considered a trade policy instrument that can work to offset the benefits of tariff liberalisation”.

RoO also provide incentive for regional producers to buy intermediate goods from regional sources, even if their prices are higher than those of identical imports from outside the FTA, in order to make their product ‘originate’ in the FTA and qualify for preferential treatment. Thus trade in intermediates is diverted from low-cost non-member countries to high-cost member countries. However, the effect of RoO on demand for local inputs is dependent on the following things: elasticity of substitution between imported and locally produced inputs, differences in their prices, magnitude of preferential tariff margin on the final product, elasticity of supply of local production and costs to satisfy RoO (Inama 2009). RoO, when restrictive, may even lead to ‘investment diversion’: they may motivate, or even force, firms to locate their plants producing intermediate goods within certain members of an PTA to satisfy these rules, disregarding the fact that those members may not be the best location from an economic point of view. An oft discussed case is that of the US Company Intel, which complained that changes introduced by the EC in 1989 to the definition of RoO for integrated circuits ‘forced’ the company to invest in Ireland (Ghoneim 1993). Krishna (2005) states that such investment diversion effects are the long-run effects of RoO. In short-run they affect only trade flows.

The first few works, specifically on RoO, were legal-descriptive papers whose main focus was RoO in the European or American context. Palmeter (1987) describes the emergence of RoO as a new form of protectionism in trade policy, especially in the context of the US. He discusses conflicting customs rulings of the US, on country-of-origin determinations with respect to the two most protective sectors namely steel and textiles. In a later paper (Palmeter 1993) the author elaborates on two interesting cases of RoO under NAFTA, which shows how RoO can restrict trade: for tomato catsup and aged cheese the required RoO is a change in the chapter (CTC at 2-digit of the H.S). For tomato catsup the CTC rule is provided with an exception: tomato catsup is ‘originating’ if in the process of making it, a change in chapter takes place from any other chapter, except if it is from the chapter containing tomato paste. This has the effect of protecting Mexican producers of tomato paste at the expense of Chilean producers (non-members in NAFTA). In the case of aged cheese it is deemed to be ‘originating’ only if the milk from which it is prepared is also ‘originating’ in the exporting country. All dairy products being classified in the same chapter under HS

20 Tomato catsup (HS code 210320) is the same thing as tomato ketchup or tomato sauce.
(Chapter 4), even a ‘substantial transformation’ from imported milk to cheese, does not involve change in chapter and hence do not qualify for preferences.

Vermulst and Waer (1990) are the first to point out that RoO are increasingly becoming commercial policy instruments *per se*, instead of merely supporting the trade policy instruments they are designed for. Cantin and Lowenfeld (1993) describe the details of the legal case in the US of Honda car imports from Canada under the US - Canada FTA and show how RoO can be interpreted in their own way by the customs for protectionist purposes. Vermulst *et al.* (1994) describe the methods of determining origin in both preferential and non-preferential regimes of five developed economies (US, EU, Japan, Australia and Canada). Jensen-Moran (1996) gives the investment diversion effects of RoO by discussing cases in the US. Following the legal-descriptive papers, came economic analyses of RoO with specific theoretical modelling and also some empirical assessments. They are discussed below in details.

Vermulst (1994) discusses all the three methods of origin determination with special focus on the percentage criterion\textsuperscript{21} (i.e. VA) and goes on to show how, depending on the way it is designed, ‘origin’ changes from one preferential trading arrangement to another for the same product. He does this by breaking down the costs of production and comparing the RoO requirements across different economies. His study finds that domestic content calculation method in the EC and Japan are more liberal than Australia and Canada. US calculation of domestic content is most restrictive because of the valuation base chosen. It is also seen that, by and large, the European PTAs have relied more on VA, while American ones have used mainly CTC. Maybe because the European countries use Value-Added-Tax (VAT\textsuperscript{22}), firms can use the VA rule more easily than their counterparts in the US.

Simpson (1994) shares the practical experiences of designing RoO for NAFTA and establishes the supremacy of CTC over other methods of origin determination. He points out the production and administration difficulties with VA and TECH and also the uncertainties they bring to trade operations. However, Simpson also discusses the

\textsuperscript{21} Vermulst (1994) calls the value added test as *percentage criterion* and CTH and TECH as *process criterion*.

\textsuperscript{22} VAT is a sales tax, levied at every stage of value addition in the manufacturing/distribution stage of production process of goods and services. It differs from conventional sales tax which is imposed on the final value of transaction only.
problems with CTC, as encountered during the drafting of NAFTA. A single standard CTC (at any level) for all products is not possible. There are cases where any CTC cannot be achieved even though “substantial transformation” takes place, as with the *aged cheese* example above. Another example is that of machinery items: they are all classified under same sub-heading in the HS so, even though substantial transformation occurs, when imported parts are made into the final machinery, requirement of CTC even at the lowest sub-heading level cannot be achieved.

1.2.2.3.1: Theoretical Models

The theoretical models developed in the area of RoO focus on a firm’s decision with respect to a binding RoO in both partial and general equilibrium settings. Krueger (1993) establishes the causal link between RoO and ‘trade diversion’ of intermediates\(^2^3\). She also shows that such ‘trade diversion’ protects intermediate producers to the apparent detriment of downstream industries but downstream final goods producers accept this because of the specific production relations that exist between component producers and their end users. This effect of RoO is magnified when there are significant differences in the external tariff regimes of the PTA member countries. The larger the differences between their MFN rates, the greater the incentive to buy higher cost inputs from a PTA member country to satisfy the RoO and thereby obtain the duty concession on the final goods sold within the PTA. Krishna and Krueger (1995) compare price and cost based RoO and show that in the short run, when capacity constraints prevail, a price based definition of RoO is preferred by Mexican firms under NAFTA. They also show that welfare is non-monotonic in restrictiveness of RoO: under imperfect competition, very stringent RoO increase output and reduce prices. Thus RoO may become welfare augmenting when they are too restrictive. Ju and Krishna (2005) allow input prices to change to introduce some general equilibrium effects. In such a setting non-restrictive RoO (i.e. non-binding RoO) will be complied by all firms (the authors call this the *homogeneous regime*). However, restrictive RoO will shift out the demand for domestic intermediates, making their price rise up to a point. Beyond this point firms become indifferent between complying with RoO and paying MFN tariffs (the *heterogeneous regime*). Thus a further rise in restrictiveness of RoO will have the

\(^{2^3}\) Barcelo (2006) points to the role of *cumulation* rule in this ‘trade diversion’ of intermediates.
effect of a decrease in the price of intermediates. Their results therefore depict the non-monotonicity introduced in Krishna and Krueger (1995). Krishna (2005) uses a general equilibrium setting with perfect competition and finds the same non-monotonicity effects of restrictive RoO. She also uses a partial equilibrium setting and shows that binding RoO act as constraints on the optimisation problem of a firm and increase production costs as shown in Figure 1.4.

**Figure 1.4: Physical content RoO and costs**

![Graph showing the effect of RoO on production costs](source: Krishna (2005))

The graph shows a unit isoquant and budget lines. It is assumed that a final good is produced using only 2 inputs under constant returns to scale (CRS). Labour (L) is the FTA input and capital (K) is the imported intermediate input. RoO requirements can be seen as physical content requirements (more local inputs, L, to be incorporated in the final product to satisfy RoO). Optimum input mix is attained at point Z (L/K = α₀). Say, RoO requirements translate into L/K = α (>α₀). Then the producer will operate at X which is clearly sub-optimal. The budget line shifts outward thereby increasing the cost of producing a unit of the product (as area under curve DE is greater than that under AB). Thus Krishna (2005) concludes that RoO are welfare reducing. Falvey and
Reed (2002), however, demonstrate certain circumstances under which a binding RoO can lead to an improvement in the importing country’s terms of trade and thus can be welfare augmenting. Duttagupta and Panagariya (2007) in a general equilibrium setup argue that RoO can improve the political viability of FTAs, even though incorporating them will reduce welfare.

1.2.2.3.2: Empirical Work

Empirical works in this area have tried to find the effects of RoO on preferential trade using the following four methodologies: finding the costs that these rules impose on firms using a revealed preference mechanism when utilisation rates of preferences are available from official trade statistics (Herin 1986, Cadot et al. 2002, Augier et al. 2005); constructing a synthetic index (restrictiveness index) to evaluate the design of a RoO regime (Estevadeordal 2000, Estevadeordal and Suominen 2003, Estevadeordal and Suominen 2005, Productivity Commission 2004 and Harris 2007); using gravity modelling specifications to find RoO effects on bilateral trade (Augier et al. 2005, Anson et al. 2005, Estevadeordal and Suominen 2006); simulation techniques to see how changes in RoO will affect trade (Cadot et al. 2006, Inama 2009).

Herin (1986) uses a revealed preference mechanism to estimate costs of RoO in the EC-EFTA trade using utilisation rates of preferences. His findings are that approximately a quarter of bilateral trade between these two trade blocs goes through MFN route even though they are eligible for preferences and about 5% of the total value of traded goods is the cost that firms incurred to prove origin. Estevadeordal (2000) uses a simultaneous equation model to understand the relationship between RoO and the tariff phase-outs under NAFTA negotiations in various sectors. He develops a restrictiveness index of RoO and shows that the sectors that have had long tariff phase-out schedules (like tobacco, food products, rubber etc) are also the ones that have been accorded more restrictive RoO. Longer tariff-phase outs are accorded to sensitive sectors to protect them. Even when these sectors will come under preferential tariff liberalisation, restrictive RoO will be in place to still protect them from competition. Modified version of this restrictiveness index of RoO (Estevadeordal and Suominen 2003, Estevadeordal and Suominen 2005) has become
instrumental in analysing RoO empirically. Productivity Commission\(^{24}\) (2004) develops a more comprehensive restrictiveness index of RoO in their research report on the Australia-New Zealand Closer Economic Relations Trade Agreement (ANZCERTA). The report also states a rough estimate of compliance costs of RoO on businesses, which turns out to be less than $70 million (Australian dollar) annually. Cadot *et al.* (2002, p. 13) calculate the average utilisation rate for NAFTA in 2000 and find it to be 64\%. A study by Augier *et al.* (2005), which focus on the impact of cumulation of the RoO under the Pan-European system,\(^{25}\) suggests that such cumulation will increase trade by about 50 per cent and that the impact is greater for intermediate rather than final goods trade. Anson *et al.* (2005) combine all the above methodology: following Herin (1986) and modifying the *restrictiveness index* constructed in Estevadeordal (2000), they estimate a gravity model for US and Mexico under NAFTA. They find total compliance costs of RoO to be approximately 5\% of which 40\% is attributable to administrative costs. They also find that the restrictiveness of RoO affect bilateral trade in a significant negative way. Concluding from the exercise, they suggest that North-South PTAs may not bring much benefit to the Southern partners. Cadot *et al.* (2006), in the context of EU’s trade with GSP and ACP\(^{26}\) partners, show from their simulation exercise that a 10 percentage point reduction in the local value content requirement of RoO will increase the utilisation rate of preferences by between 2.5 (GSP) and 8.2 (ACP) percentage points. Inama (2009) captures ‘missed trade preferences’\(^{27}\), trade preferences lost by Least Developed Countries (LDCs) in the context of EC trade preferences. Using the WITS simulation model (SMART) and assuming changes in RoO requirements that will lead to full utilisation of preferential schemes, the study finds that amidst the various sectors, textiles and articles thereof exported by non-ACP LDCs (meaning Asian LDCs) benefit by more than $1 billion.

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\(^{24}\) The Productivity Commission is the Australian Government’s independent research and advisory body on a range of economic, social and environmental issues.

\(^{25}\) To overcome the complexity of preferential RoO and their related problems, the EU together with the EFTA, Baltic countries and Central and Eastern European Countries (CEECs) introduced a unified system for determining RoO in 1997, namely the Pan-European Rules of Origin.

\(^{26}\) ACP: African, Caribbean and Pacific group of States. Some countries from these regions made an agreement to form ACP in 1975.

\(^{27}\) UNCTAD (2003) states that most preferential trading arrangements suffer from the phenomenon of ‘missed trade preferences’ - preferential treatment, that exporters could not avail due to compliance costs of RoO.
1.2.2.3.3: Policy Prescriptions

Most studies in the area of RoO of preferential trade arrangements talk about the ‘spaghetti-bowl’ effect of such arrangements and RoO therein (see footnote 18, page 16) and how it complicates trade operations. Many authors conclude with a suggestion to put more effort on multilateral initiatives to reduce MFN tariffs overall, as RoO become important only when MFN tariffs are higher than preferential tariffs (Palmeter 1993, Hoekman 1993). Vermulst et al. (1994) call for harmonisation of RoO and also use of identical RoO for preferential and non-preferential purposes. Barcelo (2006) puts forward the specific Articles of WTO that can be employed to justify preferential RoO harmonisation. Lloyd (1993) prescribes replacing the RoO requirements by adopting a value-added tariff system that he designs for the purpose. He argues that with the progress of globalisation and the increase in fragmentation of most production processes, trying to assign a single country-of-origin to a traded product is not correct. Depending on how much value is added to a product within a FTA, an appropriate tariff should be designed, thereby doing away with RoO requirements. He follows the same logic in his 2002 paper (Lloyd 2002) and extends the case for this value-added tariff-systems beyond RoO in FTAs and shows it can be used even in case of GSP (non-reciprocal preferences) and also for domestic factor content (imported goods with domestic content). Lloyd (2002) also states that adopting such a system will help in avoiding problems of trade regression (investment diversion) that RoO bring in as pointed out by Rodriguez (2001). Hirsch (1998), on the other hand, talks of developing a “progressive” system of RoO: different RoO for different countries depending on their factor endowments. According to him, a country with a large pool of resources is not going to be constrained by the rules in the way smaller trading partners will. He also argues for a compensatory mechanism to deal with the trade distortions that RoO result in.

On 18 December 2003, the European Commission opened a wide-ranging debate by releasing a Green Paper on the RoO applied in preferential trade arrangements, as it felt, “The present origin rules do not fit current economic reality... (also) the current

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28 A green paper released by the European Commission is a discussion document intended to stimulate debate and launch a process of consultation, at the European level, on a particular topic. A green paper usually presents a range of ideas and is meant to invite interested individuals or organisations to contribute views and information. It may be followed by a white paper, an official set of proposals that is used as a vehicle for their development into law.
origin rules are seen as too complex, restrictive and they lack transparency... (and) there is a clear call for rationalisation and simplification of the origin rules” (EC Green Paper 2004, pp. 4). The Green Paper is set out to find a new approach to RoO in all preferential trade arrangements involving the Community. However, it envisages that the first concrete application should be to the GSP and a ‘revised proposal’ has been accepted on the same. It calls for sector specific RoO as opposed to the initial proposal of a simple value-added rule. It introduces many supplementary rules to relax the stringency of the three main methods of origin determination. The direct transport rule (direct consignment) is found to be burdensome to prove due to documentary requirements and so, a new non-manipulation clause, is inserted in its place. Cumulation rules are relaxed further. Also the current system of certification of origin by the authorities of the beneficiary countries are proposed to be replaced by statements on origin to be given directly by ‘registered exporters’. The authorities of the countries are expected to concentrate on more effective post-export controls (EC Green Paper 2003).

1.2.3: Gaps in Literature

The literature on PTAs is well-developed but has been concentrated on evaluating the effects of PTAs with respect to western economies mainly the US and EU. Some literature in recent years has focussed on PTAs of Japan and ASEAN countries. Till now, few studies have concentrated on other developing country PTAs, which have mushroomed over the last one decade emulating trade policies of the developed nations. Methodologically, the most important gap is in the area of finding effects of these PTAs. Almost all empirical studies, till date, have used aggregate trade data in ascertaining effects of a PTA: the gravity equation uses total bilateral trade as the dependent variable. However, not all trade is covered under a PTA: most PTAs have a negative list of trade items where countries do not give any preferences. Thus an


30 The direct transport rule for EU’s GSP is replaced by a more flexible non-manipulation principle from 1st January 2011. The difference with the direct transportation requirement is that for non-manipulation clause no documentary evidence needs to be provided. Under the direct transport rule if the goods are transported via another country, the importer has to present documentary evidence that the goods did not undergo any operations there (in the country of transit), other than unloading, reloading or any operation designed to keep them in good condition. The non-manipulation clause is considered to be satisfied \textit{a priori} unless the customs authorities have reasons to believe otherwise.
analysis taking overall trade will not give a true picture of the effects of a PTA. Also most empirical work in the area uses secondary trade data. Very few studies have undertaken primary survey of traders to find out their use or non-use of such preferential initiatives. This is a big gap as traders are the ultimate beneficiaries of any PTA and thus it is important to find the extent of their usage of PTAs and the difficulties they face in using such PTAs.

The branch of literature dealing with RoO is very new and is still evolving. As discussed in the earlier section, some theoretical works have been done and some empirical methodologies to ascertain effects of PTAs have been established. Methodological difficulties as well as lack of relevant statistical information have constrained economic analysis in this area as is pointed out in Hoekman (1993). Like the literature on PTAs, most studies on RoO are done in respect to the developed economies: most of the empirical work is done with respect to PTAs of America and Europe. A few studies are done to find the effect of unilateral preferences (like GSP) of these countries on developing economies or LDCs and the role that RoO play there. Some works also focus on North-South PTAs and RoO therein. But work focusing on RoO of PTAs of the developing countries is very limited. Also, the evolution of RoO in a country’s trade policy landscape has not been given much attention. As observed from the documents, for some countries liberal RoO are chosen in the beginning which becomes more stringent for later agreements, whereas for others the reverse happens. Given this, it will be interesting to trace the path of RoO for a specific country and to understand the politico-economic rationale for their stringency (or relaxation) in later agreements. Also there is a dearth of studies to understand restrictiveness of RoO in the ex-post sense as opposed to the ex-ante sense that restrictiveness index analyses give. Implementation of RoO is another area which is overlooked largely in the literature. Enforcement problems and fraudulent practices need to be analysed to help in building better RoO regimes for future agreements. Firm specific studies to assess the impact of RoO on business is also limited. This thesis tries to fill up some of the gaps in the context of Indian PTAs.
1.3: Issues relevant for the Present Study

From the preceding sections it is clear that in recent years there has been a surge in regional trade initiatives which has led to the formation of many bilateral and plurilateral PTAs. There is a big debate in the literature on the effects of PTAs on trade. Another concern is the role RoO play in such arrangements. It was seen that these rules have a built-in protectionist edge, which can negate the tariff reduction initiatives under PTAs. The exact effects of RoO within a PTA depend on the restrictiveness of its design. Restrictive RoO design may result in underutilisation of the preferential schemes, thereby defeating the purpose of a PTA. RoO may increase production costs of firms. They also add compliance costs on them. RoO thereby is a very important factor in a firm’s choice in engaging with PTAs. Moreover, different RoO of overlapping PTAs bring in complexity to trade operations. Some studies have tried to delineate the effect of RoO in PTAs the international arena. But there has been no such work in the specific context of India, to the best of my knowledge. Filling this gap is a major motivation for undertaking this study. Given the fact that the Government of India (GoI) is actively negotiating PTAs, studying the effects of the PTAs, already in force, and their RoO, is an important research agenda to pursue. It is also important to explore a methodology to find out the effects of PTAs on trade. Enforcement of RoO, apart from evaluation of their design, is another important and under-researched area. Following all the discussions, the main research questions that emanate for this study are:

1. How have the PTAs affected bilateral trade between India and its partners?
2. Are RoO in India’s various PTAs restrictive?
3. What challenges do Indian traders face in using the PTAs?

When the issue of RoO and tariff preferences are placed in the context of ground realities as they exist in firm operations, it will throw interesting results for further consideration at the policy level. Such an assessment may form the basis of evolving the origin system and also help in negotiation of future PTAs within Indian trade policy making and thereby will ultimately contribute in trade facilitation.
1.4: Research Objectives

Following the research questions in the preceding section the specific research objectives of this thesis are:

1. To analyse the preferential trade dynamics between India and its PTA partners.

2. To evaluate the design and enforcement issues of RoO within the PTAs.

3. To find firm-specific issues in use of the PTAs.

1.5: Methodology, Data Sources and Time period of Analysis

For the first objective desk-based research is carried out using secondary trade data. To analyse the role of preferences, the commodities getting preferences (at the HS 6-digit or 8-digit level, as the case maybe) are located from the various PTA documents. For this analysis only bilateral PTAs are chosen. Items of preference under a regional PTA differ for each member country and are thus difficult to calculate for the PTA as a whole. To ascertain the role of preferences in bilateral trade a panel data analysis is used. As India’s PTAs have come into effect recently (Sri Lanka FTA, the first bilateral PTA, has been in force since 2000) there are few observation points and thus a time-series analysis is not possible. Also, aggregate trade data does not give a true picture of the effect of preferences, as has been discussed before. So, the secondary data analysis concentrates on items that got preferences under the PTAs. The time period for analysing the trade data is a twenty year period, from 1990-91 to 2009-10 (the latest data available at the time of writing).

For the second objective RoO documents of the various PTAs are analysed from the texts available and then evaluated on a comparative scale using an appropriate RoO restrictiveness index available in secondary literature. Case studies are prepared with respect to enforcement issues of RoO.

For the third objective a primary survey of certifying agencies in India is conducted to gather data on use of the PTAs, as official trade statistics do not give any information
on preferential trade. For identifying firm-specific issues a primary survey of traders is undertaken. A questionnaire is prepared to elicit information (quantitative assessment) and opinions (qualitative assessment) on the India-Sri Lanka FTA, the PTA that has been in force for a considerable length of time.

The various RoO documents are taken from the website of the Department of Commerce, under Ministry of Commerce and Industries, GoI. The sources for trade data are India Trades database developed by CMIE (Centre for Monitoring Indian Economy) and the UNCOMTRADE database available in the World Integrated Trade Solution (WITS) website developed by World Bank. Tariff data is accessed from TRAINS database available in the WITS website.

1.6: Chapter Scheme

The thesis is arranged into five chapters including this introduction. This introductory chapter explains the topic, discusses relevant literature, states objectives of the study and details the methodology to be followed. Chapter 2 documents the bilateral trade data analysis between India and its PTA partners. It discusses the provisions of each of the Agreements and tries to find out to what extent preferences accorded in the agreements has helped in boosting bilateral trade. Analysis of the design of RoO and their enforcement is done in Chapter 3. Firm-specific issues in use of India’s preferential trade are explored in the Chapter 4. The last chapter lists the major findings, discusses limitations, gives policy suggestions, poses issues for further research and concludes the study.