CHAPTER 1

THE REVIVAL OF REGIONAL TRADE ARRANGEMENTS:
IMPLICATIONS FOR INDIAN TRADE POLICY

1.1 Introduction

This thesis assesses the effects of various regional trade arrangements (RTAs) on India and other nations in Asia, America and Europe in a computable general equilibrium (CGE) framework. Regional trade arrangements have become an important feature of the global trading system in recent years. Almost every member of the General Agreement on Tariffs and Trade (GATT) has been a member of one or more regional trading arrangements. Multilateral negotiations under the auspices of GATT, now the World Trade Organization (WTO), in the post World War period have been successful in almost eliminating tariffs. But increasing use of non-tariff barriers (NTBs) since the 1970s has almost nullified the effect of tariff reductions. The growth of "New Protectionism" that relies more on non-transparent trade measures such as voluntary export restraints (VERs), anti-dumping actions and several grey area measures has eroded the effective functioning of the GATT. This has resulted in growing disillusionment with the multilateral process and increasing reliance on regional trading arrangements (Krugman, 1991). This spurt in regional trade arrangements, has fuelled the apprehensions of a fragmentation of the world trading system into three major trading blocs led respectively by the EU, the US and Japan. The growing surge for regionalism has generated considerable debate as to whether the situation of 1930s, with its pervasive use of discriminatory trade practices and retaliatory trade measures, would be recreated.
In recent years, almost every nation has changed its trade policy. The developing countries as a whole have shifted towards more outward oriented trade policies instead of the earlier import substituting industrialization policies. The Uruguay Round agreement, concluded in December 1994, extended the scope of multilateralism with its wider coverage both in terms of issues and country participation. But parallel to growth of multilateralism, regional trade arrangements are also on a rising trend exemplified by the North American Free Trade Agreement (NAFTA), MERCOSUR (Southern Cone Common Market), and Asia-Pacific Economic Cooperation (APEC). This simultaneous development of both regionalism and multilateralism in the global trading system has generated concerns among many countries such as India.

During the last decade, particularly since 1991, Indian economic policies have been comprehensively reformed. The change in policies affecting foreign trade has been enormous. These include substantial reduction of tariffs, elimination of trade licensing for imports of intermediate and capital goods, and market determination of the value of Rupee which has been made convertible for current account transactions. Despite all these initiatives Indian policy makers face a peculiar problem. India's exports do not have a secured access to a large market which they may have had by virtue of belonging to a trading bloc. A major concern in this context is whether India's competitive position could deteriorate in a trading system dominated by preferential trading arrangements.

There have been suggestions that India should seek membership in one or more trading arrangements (Bhagwati and Srinivasan, 1993). It has been emphasised that India should explore prospects for signing an Associate Membership with the EC as has already been done by many non-EU nations, and/or explore the possibility of joining NAFTA, perhaps by exploiting the
Commonwealth relationship with Canada and simultaneously approaching the US. Bhagwati and Srinivasan have indicated that India could also become an active proponent of the idea of forming an Asian bloc and seek membership as and when the idea materialises.

It is argued that, by joining a preferential trade arrangement (PTA) India could safe-guard her interests, as otherwise the risk of becoming a "marginalised non-member nation" facing a tougher trading environment remains (Bhagwati and Srinivasan, 1993). Furthermore, it is feared that the marginalised non-members, not having an open access to the countries forming bloc, would not be able to attract foreign investment. This consideration of secured market access and an expectation of inward flow of foreign investment governed the move by the Mexican President to seek to join NAFTA. Apart from static gains from joining a PTA, India can receive several important dynamic benefits. These could arise, for example, from increased competition, economies of scale, stimulus to investment (in terms of flow of foreign investment) and better utilization of resources. This thesis, in the main, assesses the effects of regionalism on India and other nations (to some extent) and explores the possible alternatives for India in a trade regime which is feared to be dominated by regional trade arrangements.

1.2 Organization of the Dissertation

This section outlines the organization of the thesis. Chapter 1 sets out the basic objectives of the study, specifies methodologies and explains how this study is different from other studies.

Chapter 2 provides an exhaustive survey on the evolution of the theoretical literature on regional trade arrangements. Starting with the pre-Vinerian concept of customs union this chapter analyzes the evolution of the theory from Viner (1950), Lipsey (1957, 1960) to the present day.

Chapter 3 analyzes different views of regional trade arrangements, their objectives and
goals that stimulated such agreements. It argues, it is unlikely that the trading system become more protectionist with more and more barriers to trade and retaliation though the possibility cannot be ruled out because of the severity of domestic problems in larger countries. But the trend towards regionalism is likely to continue as regional trading arrangements act as an effective mechanism for solving regional problems regionally rather than the time-consuming GATT process. And also because regionalism has become an instrument for regional multilateral interplay.

Chapter 4 makes an attempt to understand the historical pattern of Indian trade by using an extended version of the Gravity Model. Unlike other studies, the gravity model used here uses regional dummies for explaining the geographical pattern of Indian trade rather than using regional dummies for pairs of countries belonging to the same agreement. Unlike other studies, this shows the importance of a "continent" in international trade. This study finds that while there has been a certain degree of regionalization in Indian trade with ASEAN, SAARC, US, Japan and EU, continents have been important barriers to trade. Why continents have such a significant and negative effect is yet to be explored.

Chapter 5 analyses the implications of the North American Free Trade Agreements on India. In doing so it first examines the nature of India-NAFTA trade by using the Export Similarity Index (ESI) and Export-Import Similarity Index (EISI) due to Finger and Kreinin (1979) and Allen (1957). It also discusses the issues of concern for countries like India due to the formation of NAFTA. This chapter then discusses why the applied general equilibrium (AGE) approach has been chosen as the principal methodology in this thesis. General equilibrium theory provides the intellectual underpinnings for modern macroeconomics, public finance, trade and
many other fields. AGE methodology converts the theoretical Walrasian general equilibrium structure formulated by Arrow and Debru and others in the 1950s into realistic models of actual economies. Numerically specified general equilibrium models can then be used to evaluate concrete policy options by specifying production and demand parameters (Shoven and Whalley, 1992). This chapter then specifies a static computable general equilibrium model. The model is benchmarked to reflect economic flows in 1992. The model has five regions namely, India, Canada, Mexico, USA and the rest of the world. This model uses a constant elasticity of substitution (CES) specification of the production possibility frontier (PPF). This specification allows for indications of movements along the PPF and therefore, changes in the composition of production due to policy changes. Since the focus of the study is on efficiency rather than distributive effects, each region contains only one representative agent. On the demand side the representative single agent in each region maximises over a double nested CES utility function subject to the economy’s budget constraint. To incorporate the substitution possibilities in consumption between domestic and foreign goods the model adopts "Armington” assumption that goods are differentiated by source of origin (Armington, 1969). This assumption is essential to account for cross-hauling in trade data. The Armington assumption has been criticized on the ground that results in such a framework exhibit strong terms of trade effects (Brown, 1987). The terms of trade effects crucially depend upon the value of elasticity parameters used. In the absence of actual estimates, we, in this model, use appropriate elasticity parameters such as a comparatively low elasticity value of smaller countries such as India and Mexico to take care of the problem. Observed data was used to calibrate parameter values.

This chapter finds that the formation of NAFTA has very little effect on a third country
like India as well as rest of the world when one considers the traditional trade creation and trade diversion approach of Jacob Viner (1950). Thus India should not be worried much about the formation of NAFTA. But that’s not all. The major concern of India and other nations not belonging to any large trading bloc is the threat of retaliation. A large country could gain significantly from trade retaliation by pushing the terms of trade in its favour. In the existing framework we assume tariffs vis-a-vis non-members remain unchanged while tariffs between members either fall or are eliminated. If the blocs such a NAFTA become protectionist by raising barriers vis-a-vis non-members then the outcome could be a huge welfare loss for the non-member countries. Thus a proper understanding of the concerns of many developing countries for the proliferation of recent regional arrangements requires going beyond the traditional approach to the other extreme by incorporating the potential cost of these arrangements in the event of a retaliatory trade regime.

Chapter 6 takes up this issue and uses two solution concepts; comparative-static competitive equilibria under which tariff rates are exogenously specified (basically member countries eliminates tariffs and tariffs vis-a-vis non-members remain unchanged) and non-cooperative Nash equilibria under which optimal tariff rates are endogenously determined by each region), to analyze the implications for different kind of regional trading arrangements such as FTA and a CU. The model developed in this chapter consists of eight regions, namely India (IND), Australia, New Zealand and Japan (ANJ), Rich Asia (RIA), Poor Asia (POA), NAFTA (NAF), South America (SAM), European Union and Eastern Europe (EUR) and the Rest of the World (ROW). Each region in this model has one differentiated good. The model is an enlarged version of the retaliatory Nash tariff and trade structure first set out in Johnson (1954) and
Gorman (1957), and subsequently expanded on Hamilton and Whalley (1983), Markusen and Wigle (1989), Kennan and Reizman (1990), Perroni and Whalley (1994) and Ghosh and Whalley (1997). Our contribution here is to introduce Nash non-cooperating solution in a larger dimension. This chapter suggests that growth of regional trade arrangements could have dangerous implications if trade retaliation were to occur.

1.3 How is this study different from other studies: The Contribution of the Thesis

This thesis contributes to the area of regional trade arrangements both theoretically and empirically. This thesis provides an up to date survey of literature on the broad area of the theory of customs union. Using a large data set this study establishes econometrically that Indian trade flows have a regional bias in Europe and US and Japan. This study makes a systematic effort at understanding the regional trading arrangements and in doing so uses different methodologies which give different interpretations. For example, a traditional analysis, by using comparative static general equilibrium framework in the absence of trade retaliation, the predicted gains and losses from a trade agreements found to be very small compared to what is predicted in the case of a Nash tariff game.

Thus this study is different from other studies in many respects. This study shows that evaluation of the effects of regional trade arrangements is minimal on the basis of traditional trade creation and trade diversion analysis. In practice also there has been very little trade diversion effect of recent regional trade arrangements. But the gains or losses could be substantially high if one considers the potential effect of trade retaliation. The losses for the developing countries in the event of a trade war could be as much as 5-6 per cent of national income. Thus, this could explain the concerns of many developing countries on the proliferation
of regional trade arrangement. This thesis contributes in Indian trade policy debate. This could give policy guidelines in the context of Indian trade policy. Apart from regional trade arrangements the model developed in this thesis could be used for analysing many other issues relating to trade and tax policy reforms.
ENDNOTE

1. Other motivations behind Mexico's joining NAFTA are discussed in chapter 3.

2. This assumption has many advantages as discussed in chapter 5.

3. The calibration approach has, however, been criticized as having weak empirical foundations because it imposes no testable restrictions on the market data. For details see, Hansen and Heckman (1996).