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ScienceDirect
Journal of Asian Economics 18 (2007) 974–987
Journal of Asian Economics

Asia/Pacific Regional Trade Agreements: An empirical study

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Received 23 January 2007; received in revised form 10 September 2007; accepted 28 September 2007

Abstract

At the same time as the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO) have been encouraging trade liberalized, there has been a proliferation of Regional Trade Agreements (RTAs). These RTAs also aim to reduce trade barriers, but they do so it in a preferential way. There is continued debate as to whether such RTAs are an effective way of achieving free trade, or if increased trade among members causes less trade with non-member countries? If RTAs increase total trade, this is known as 'trade creation', whereas if the extra trade occurs at the expense of non-members, this is called 'trade diversion'. Trade creation implies improved welfare, whereas 'trade diversion' may adversely affect welfare. This paper examines five different RTAs using a gravity model to see if they have been trade creating or trade diverting. Annual data from 26 countries covering five RTAs in the Asia and Pacific region for the years 1980–2000 was used.

The results show that the effects of the different RTAs varied remarkably. The Association of South East Asian Nations (ASEAN) and the Australian and New Zealand Closer Economic Relations (CER) fostered greater trade with trading partners and with the rest of the world. While the Asian Pacific Economic Cooperation (APEC), the Southern Cone Common Market (MERCOSUR) and the North American Free Trade Association (NAFTA) tended to be trade diverting, that is, they expanded intra-bloc trade at the expense of trade with others.

JEL classification: F1; F14; F15

Keywords: Intra-regional trade; Regional trade agreements; Trade creation and trade diversion

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doi:10.1016/j.asieco.2007.09.003

1. Introduction

This paper addresses the question of whether Regional Trade Agreements (RTAs) enhance welfare. This is examined by using a gravity model to analyse the effect the Association of South East Asian Nations (ASEAN),[1] Australian and New Zealand Closer Economic Relations (CER), the Asian Pacific Economic Cooperation (APEC), the Southern Cone Common Market (MERCOSUR) and the North American Free Trade Association (NAFTA) have had on the trade of both members and non-members of these RTAs. In the previous literature the gravity model is usually used to examine only one or two RTAs at a time. This study is unusual in that a comparable method has been used to look at five different RTAs.

'Trade creation' occurs when the introduction of an RTA allows an importing country to purchase products at lower cost than was previously the case. In contrast, 'trade diversion' is the substitution of a more costly source of supply within an RTA for a less costly source outside. As the introduction of an RTA will generally have both 'trade creation' and 'trade diversion' effects, it is the net affect that needs to be assessed when deciding whether an RTA hinders or enhances welfare. This paper tests for the existence of 'trade creation' and 'trade diversion' as a result of five RTAs by using dummy variables within the context of a gravity model. Although the standard gravity model is extended in this paper via the introduction of tax and exchange rate variables (something not often done in previous studies).

The rest of the paper is structured as follows. Section 2 describes the analysis of RTAs. Section 3 provides a description of the data used, as well as explaining the estimation procedures. Section 4 reports and discusses the empirical findings, and finally Section 5 provides some concluding remarks.

2. Regional Trade Associations

Initially economists saw Regional Trade Agreements (RTAs) as welfare enhancing, as they were a step toward free trade. That is, as long as an RTA did not increase trade barriers to non-members they were thought to improve welfare. However, Viner's (1950) paper changed this idea by noting that RTAs lead to both 'trade creation' and 'trade diversion'. Trade creation occurs when the establishment of an RTA allows an importing country to purchase products at lower cost than was previously the case. Clearly this benefits both the importing country and the world as a whole. In contrast, 'trade diversion' is the substitution of a more costly source of supply within the RTA for a less costly source outside, and this would negatively affect welfare. As an RTA will generally have both 'trade creation' and 'trade diversion' effects, it is the net affect that needs to be assessed when deciding whether it enhances welfare.

Johnson (1960) developed a partial equilibrium diagram that explained the economic effects of 'trade division' and 'trade creation'.[2] The diagram can be used to show that the affect of an RTA will be the sum of several effects, and that in markets where trade is diverted countries may be better or worse off. More recently computable general equilibrium models have been used, and the results using these techniques confirm Johnson's conclusions. Lloyd and MacLaren (2004) have an

[1] The ASEAN RTA is sometimes known as the Asian Free Trade Association (AFTA).

[2] Pomfret (1997) and Schiff and Winters (2003) both have very good expositions of Johnson's partial equilibrium diagram.