Quantitative impacts of alternative East Asia Free Trade Areas: A Computable General Equilibrium (CGE) assessment

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Abstract

This paper analysis the relative economic effects of four East Asian Free Trade Area (FTA) options. A particular feature of the model, which is an extension from a standard CGE model, is the introduction of unemployment with the intention of assessing the changes in the real wage and unemployment in each region under each of those options. The simulation results suggest that a preferred strategy for member regions is the "East Asia FTA" multilateral agreement,[1] which would yield higher gains in welfare and greater economic impacts than any of the other possible bilateral agreements – ASEAN–China, ASEAN–Japan and ASEAN–Korea. However, such an 'ideal' multilateral economic integration might be deterred by the uneasy relationship between Japan and other East Asian nations, reflecting their economic and political differences.
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1. Introduction

East Asia is probably the region that has been most active over the last decade in seeking the rapid expansion of Preferential Trade Agreements (PTAs). Establishing the East Asian Free

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   [1] ASEAN, China, Japan and Korea.

Trade Area (EAFTA) agreement, which includes ASEAN (the Association of South East Asian Nations), China, Japan and Korea, is the major goal for the whole region.

Regionalism in East Asia has proliferated for three main reasons: (1) the failure of the Asia Pacific Economic Cooperation (APEC) group and the World Trade Organization (WTO) to have a substantial impact at either the continental and global levels; (2) the need of the East Asia economies to establish their own institutional identity in order to strengthen mutual cooperation following the adverse impacts on their economies of the Asian financial crisis in 1997; (3) the continued highly discriminatory nature of intra-regional trade in East Asia, which remains a major obstacle to expanding trade within the region.

Since 2000, there have been many attempts to negotiate a number of Free Trade Area (FTA) agreements within the region. However progress in the negotiation of the bilateral FTAs between ASEAN–Korea and ASEAN–Japan has proved to be fairly slow.[2] In the meantime ASEAN and China have pursued their own trade agreement, their ambition being to remove import tariffs on commodity trade with each other by 2010. The proposed ASEAN–China Free Trade Area (ACFTA) is the most ambitious and active initiative in East Asia at the moment. Its economic effects on both trading partners are expected to be substantial due to the increasing importance of China in world trade.

The intention of this paper is to analyse the economic effects of four different possible FTA options for the East Asian economies, using a 14-country, 14-sector Computable General Equilibrium (CGE) model as a tool. This paper is organized as follows: model description is provided in Section 2. The model results under different policy simulations, reported in Section 3, reflect the preferred strategy for each region. Sensitivity analysis is conducted, in this section, to test for model robustness. Finally, the policy implications and concluding remarks are presented in Section 4.

2. Model description

The data for a CGE model for East Asia are taken from the GTAP database version 6, which reflects the global economy in 2001. The data are aggregated into 14 regions, 14 sectors, and 3 primary factors. The 14 regions are China, Japan, Korea, Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam, Rest of Southeast Asia, North America Free Trade Area (NAFTA), European Union (EU), the Australia–New Zealand Closer Economic Relations group (CER), and Rest of the World (ROW).

The 14 tradable sectors are a land-intensive sector, processed food, a natural resource intensive sector, textile and apparel, leather and shoes, wood and paper, petroleum coal and metals, rubber and plastic, motor and equipment, electronic equipment, machinery, other manufactures, transports, and other services.

The three factors are unskilled labour, skilled labour, and capital, with each group assumed to be homogenous. Both types of labour and capital are perfectly mobile between sectors in each region, but immobile internationally. This implies that factor returns may differ across regions.

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[2] Japan has concluded bilateral agreements with six individual nations of ASEAN. Each bilateral agreement varies in the details of product coverage. It is still uncertain when the rest of ASEAN nations, CLMV, will be included in the FTA arrangement. And, more importantly, it is uncertain whether the ASEAN–Japan Free Trade Area (AJFTA) will be become the single main agreement or whether various bilateral agreements will be kept under the umbrella of a so-called AJFTA.