Asymmetries and Tariff-Tax Reforms in the Asia-Pacific Economic Cooperation: A Quantitative Assessment

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Abstract. Many asymmetries among member countries in the Asia-Pacific Economic Cooperation may cause conflicting interests, or may offer opportunities for collaboration. This paper investigates an optimal coordinated tariff-tax reform, and examines the factors which significantly affect the level of welfare. Through the examinations, we see whether fiscal policy issues are affected by those asymmetries. An optimal coordinated tariff-tax reform keeps up with the current global trend of domestic tax reform, directed towards increasing consumption taxes. Sensitivity analyses imply that tariff-tax reforms are not likely to favor developed countries which have a lower degree of dependence upon foreign trade and lower tariff rates.

JEL Classification: F13, H30.
Keywords: Tariff-tax reforms, Asymmetries, Asia-Pacific Economic Cooperation, Computational general equilibrium

1. Introduction

The economic cooperation agenda within the Asia-Pacific Economic Cooperation has been primarily focused on free and open trade and investment. However, the APEC may have some difficulties in reaching internal consensus among member countries, due to asymmetries which are attributes of the APEC. These asymmetries may cause conflicting interests, and eventually create potential tension, or may offer opportunities for collaboration.

There has been growing interest in Free Trade Agreements among member countries. As the United States and Korea currently negotiate a bilateral FTA, several sensitive issues draw the attention of both countries' officials. Under the asymmetries between two countries, each country set its own objective in the FTA negotiations. In the negotiations, do those asymmetries finally work for conflict or collaboration?

This paper investigates an optimal coordinated tariff-tax reform, and examines the factors which significantly affect the level of welfare. Through the examinations, we will see whether fiscal policy issues are affected by those asymmetries. This paper is organized as follows. The second section gives a brief overview of asymmetries within the APEC. Section 3 introduces an outline of previous studies on coordinated tariff-tax reforms. A simulation model and calibration issues are presented in section 4. Section 5 provides simulation results and interpretation. Finally, the last section summarizes this study and suggests policy implications.

2. Asymmetries in the Asia-Pacific Economic Cooperation

The Asia-Pacific Economic Cooperation economy represents 56 percent of the world GDP and 48 percent of the world trade. More than 2.6 million people from twenty one member countries are involved in the APEC economy. Developed countries and developing countries are all intertwined. There are dissimilarities or asymmetries in trade patterns and tax structures.

Table 1 shows the GDP per capita of the APEC member countries. In Table 2, the countries are listed by the order of the degree of interdependence upon foreign trade (especially upon imports). Trade patterns are different among member countries. Many developed countries, including the U.S., Japan, and Australia, have a lower degree of interdependence upon foreign trade, whereas many developing countries, including Malaysia, Thailand, the Philippines, and China, heavily rely on foreign trade.

Table 1: Gross Domestic Product per Capita

	GDP per capita	Countries
Tier I	Over $30,000	U.S., Japan, Canada, Australia
Tier II	$29,999-$10,000	Singapore, New Zealand, Hong Kong, Korea, Taipei
Tier III	$9,999-$5,000	Mexico, Chile, Russia, Malaysia
Tier IV	Under $4,999	Peru, Thailand, China, Indonesia, Philippines

Source: Asia-Pacific Economic Cooperation (2005)

Table 2: Degree of Interdependence upon Foreign Trade

	Imports/GDP	Countries
Tier I	Over 50%	Hong Kong, Singapore, Malaysia, Thailand, Taipei
Tier II	49%-25%	Philippines, China, Korea, Canada
Tier III	24%-15%	Chile, Mexico, New Zealand, Indonesia, Australia
Tier IV	Under 14%	Russia, U.S., Peru, Japan

Source: Author's calculations, based on Asia-Pacific Economic Cooperation (2005)

Tax structures are also different among member countries. Import tariff rates are much differentiated between developed countries and developing countries. Since developing countries, in general, mostly rely on tariffs as sources of tax revenue, they have relatively higher tariff rates. The ratio of consumption taxes to income taxes in developing countries has consistently remained more than double the ratio in developed countries.[2] It is true that developing countries rely more on indirect taxes, such as consumption taxes and import tariffs.