

# GSAPS THE SUMMARY OF DOCTORAL THESIS

## ASEAN and Economic Integration:

### An Empirical Analysis on Effectiveness of Investment Sources as Foreign Exchange

4008S315-6

Yoo, Jung-Geun

Chief Advisor: Prof. Urata, Shujiro

**Keywords:** ASEAN, Economic Integration, panel regression, VAR, panel VAR, System GMM

This dissertation attempted to show the effectiveness of investment sources as foreign exchange, i.e., trade earnings, foreign direct investment (FDI), and official development assistance (ODA), in ASEAN's attempts to realize economic integration. ASEAN differs from other regional trade blocs pursuing economic integration in that the ASEAN countries share a common interest in the pursuit of development, but have diverse cultural and economic backgrounds. Therefore, this study on the economic integration of ASEAN had to consider the diversity within the bloc.

First, based on the theory of optimum currency areas, trade and FDI flows were analyzed to evaluate economic integration in ASEAN compared with other major economic integrations, e.g., the EU, NAFTA, and ASEAN+6. With regard to dependence on trade, ASEAN was the economic integration most inclined to be open to the world economy, but as an intra-regional relationship, it remained less developed and robust than the EU. Additionally, the growth rate of investment flows into ASEAN was higher than for other economic unions. Furthermore, comparison of ASEAN+6 and the EU in terms of trade flows reveals similar levels of economic openness for both economic unions, though from an intra-regional perspective the EU was more open than ASEAN+6. However, the gap in FDI flows between the ASEAN+6 and the EU recently has narrowed considerably.

Analysis of the effect on trade of ASEAN plurilateral RTAs (i.e., FTAs between ASEAN members and partners outside the bloc), focused on the 1988 to 2015 period, found significant growth of imports for ASEAN countries after RTA implementation. ASEAN plurilateral RTAs have affected trade flows less than ASEAN bilateral FTAs, but have had an even clearer trade diversion effect, which has led to the substitution effect. Analysis of the effect of ASEAN RTAs for partner countries outside ASEAN found that exports, imports, and total trade to Korea increased after those countries signed ASEAN RTAs. For Australia, New Zealand, and India, no significant changes in trade volume except imports were found after these countries signed ASEAN RTAs. Meanwhile, exports, imports, and total trade to China and Japan decreased after those countries signed ASEAN RTAs. Notably, ASEAN's trade tends to be more focused on East Asia and the Pacific than other continental regions. This economic affinity is expected to be a crucial motivation in overcoming the economic and cultural diversity among Asia Pacific countries.

Additionally, utilizing macro-level panel data from 2001 to 2012, the economic effect of ASEAN plurilateral RTAs on inward FDI to ASEAN countries was analyzed from the perspective of industrialization development stages. Initially, according to estimates for the ASEAN countries as a group, ASEAN RTAs had a positive impact in attracting vertical FDI to the region, representing a change from the previous situation where horizontal FDI had been dominant. Meanwhile, for Singapore, with its diversified economy, ASEAN RTAs were not effective in

attracting FDI from source countries. Singapore had already successfully attracted vertical FDI before the ASEAN RTAs. For economies undergoing industrialization, such as Thailand, Malaysia, and the Philippines, ASEAN RTAs exerted a negative effect in attracting FDI. In this group, horizontal FDI dominated before ASEAN RTAs, but ASEAN RTAs created a strong incentive for potential investors to replace such foreign investment with trade transactions. However, the influence of market potential increases after ASEAN RTAs, which induces third-country effects such as export platform FDI. Finally, for the incipient industrialization economies of Indonesia, Vietnam, and Cambodia, ASEAN RTAs attract vertical FDI. In this group, horizontal and vertical FDI coexisted before ASEAN RTAs, but after ASEAN RTAs vertical FDI became more attractive.

Furthermore, utilizing time-series and panel data from 1970 to 2009, the causal relationships were analyzed between GDP, exports, FDI, and ODA in ASEAN newly industrialized countries (NICs). According to the causality study based on vector autoregressive (VAR) analysis for each of countries, ODA was the dominant factor for GDP in Malaysia and the Philippines, and there were definite mutual causal relationships between exports, FDI, and GDP for Thailand. In addition, the results of the panel VAR analysis based on system GMM showed that ODA and FDI affected the GDP of ASEAN NICs by 18.2% and 8.3%, respectively, and FDI and ODA influenced the exports of ASEAN NICs by 13.6% and 8.6%, respectively. In summary, ODA has played a fundamental role in fueling the ASEAN economy, while FDI has also contributed considerably to GDP and export earnings in ASEAN NICs. However, the effects of the export earnings of ASEAN NICs on their economies appear to have been comparatively weaker.

## References

- Solow, R. (1956), A Contribution to the Theory of Economic Growth, *The Quarterly Journal of Economics*, 70(1), 65-94.
- Rose, A. K. and E. van Wincoop (2001), National Money as a Barrier to International Trade: The Real Case for Currency Union, *The American Economic Review*, 91(2), 386-390.
- Urata, S. and M. Okabe (2014), Trade Creation and Diversion Effects of Regional Trade Agreements: A Product-level Analysis, *The World Economy*, 37(2), 267-289.
- Markusen, J. R., A. J. Venables, D. E. Konan, and K. H. Zhang (1996), A Unified Treatment of Horizontal Direct Investment, Vertical Direct Investment, and the Pattern of Trade in Goods and Services, *NBER Working Paper*, (5696).
- Chenery, H. B. and N. G. Certer (1973), Foreign Assistance and Development Performance, 1960-1970, *The American Economic Review*, 63(2), 459-468.