## 博士学位論文審查報告書

# Summary of Doctoral Thesis and Report of Examination

研究科長 殿下記のとおり、審査結果を報告します。		日報	—————————————————————————————————————	文(審査報告書
To the Dean: We report the result of Examination for the	ne Doctoral Thesis below.	Tipl	学位記	文科省報告
学籍番号 Student I.D. No.:	4009S301 -	2012	6249	甲3827
学生氏名 Name:	Kiki Verico		0210	, 002,
和文題名 Title in Japanese:東南アジアに	おける差別的貿易政策の直接投資およ	び貿易	に与えた影	響:
1988 年~2008				
英文題名 Title in English: The Impacts of	of Discriminatory Trade Arrangements			Investment
and Foreign	Trade in Southeast Asia during the 1988 記	<u>3-2008</u>	<u>Period</u>	
1. 口述試験参加教員 Faculty Members				
①審查委員会主查 Chief Referee of t				
氏名 Name:	第田秀次郎 浦田秀次郎			ΕD
所属 Affiliated Institution:				····
資格 Status:	—————————————————————————————————————			
博士学位名・取得大学名: Pi	n.D. Title Earned Name of Institution			
	Ph.D スタンフォード大学			
②副査(審査委員 1)Deputy Advisor				
氏名 Name:	不破信彦			ED
所属 Affiliated Institution:	アジア太平洋研究科			
資格 Status:	教授			
博士学位名・取得大学名: Ph	n.D. Title Earned · Name of Institution			
	Ph.D カリフォルニア大学バー	クレー	校	
③審查委員 2 Member of Screening (	Committee 2			
氏名 Name:	松岡俊二			ED
所属 Affiliated Institution:	アジア太平洋研究科			
資格 Status:	数授			
博士学位名・取得大学名: Ph	n.D. Title Earned · Name of Institution			
	博士 広島大学		· · · · · · · · · · · · · · · · · · ·	
④審査委員 3 Member of Screening (	Committee 3			
氏名 Name:	横田一彦			<u>ED</u>
所属 Affiliated Institution:	早稲田大学商学学術院			
資格 Status:	教授		******	
博士学位名・取得大学名: Ph	n.D. Title Earned · Name of Institution			
	Ph.D コロラド大学			<del></del>
		Pariod	Porio	A
2. 開催日時 Date / Time:			~ 5時 <b>6</b>	-
[時限 / Period] 1 <sup>st</sup> : 9:00-10:30, 2 <sup>nd</sup> : 10:40-12:10, 3. 会場 Venue:		0, 6 <sup>th</sup> : 18	3:15-19:45, 7 <sup>th</sup>	20:00-21:30
5. 云殇 venue. 4. 合否判定 Result:		51 <b>-</b> O	Cirolo on ar	oproprioto)
4. ロロ刊足 Result. 5. 添付資料 Attached document(s)	<u>〇合/Passed・否/Failed</u> (該当する方	ر اد ا	onde as ap	ppropriate)
7枚 pages(和文4,000字程度、もしくは英文	1,500語程度。ただし、論文題目のみは、和3	で英文を	を併記すること	=)
(Approximately 4,000 characters in Japanese written in both Japanese and English.)	e, or 1,500 words in English. The Doctora	l Thesi	s title, howe	ver, must be

### Reports of Submitted Ph.D Dissertation

Name: Kiki VERICO

Title: The Impacts of Discriminative Trade Arrangements on Foreign Direct Investment

and Foreign Trade in Southeast Asia during the 1988-2008 Period

邦語タイトル:東南アジアにおける差別的貿易政策の直接投資および貿易に与

えた影響:1988年~2008年

#### I. Overview of the Dissertation

This dissertation attempts to examine the impacts of discriminatory trade policies at three different levels, sub-regional, bilateral, and regional levels, on foreign direct investment (FDI) inflows and foreign trade in Southeast Asia.

For the discriminatory trade policy at sub-regional level, this study takes up the International Tripartite Rubber Organization (ITRO), an exclusive economic cooperation of three member states of the Association of Southeast Asian Nations (ASEAN): Indonesia, Malaysia and Thailand. ITRO, which was established in 2001, manages the quantity of natural rubber in order to increase its major producers' market power. High market power of primary sector and homogenous product such as agriculture products are expected to increase profit and to stimulate FDI inflows. The hypothesis of this first analysis is 'ITRO is effective to stimulate FDI inflows in the rubber sector'. The second analysis deals with Bilateral Free Trade Agreement (BFTA). The hypothesis of this second analysis is 'BFTA is effective in attracting FDI inflows'. Lastly, the third analysis is at the regional level. This study examines the impact of ASEAN Free Trade Area (AFTA) on both the intra-regional trade (trade creation) and FDI inflows (investment creation). The hypothesis of this third analysis is 'AFTA is effective in increasing intra-regional trade and attracting FDI inflows'. Further, this analysis also examines the impact of BFTA on intra-regional (intra-ASEAN) trade as a proxy to assess the relation between lower (bilateral) and upper (regional) levels of FTAs. This will test the existence of 'noodle-bowl phenomenon' resulting from the proliferation of FTAs.

The analyses conducted in this dissertation find that all of the hypotheses are rejected statistically. This proves that sub-regional (ITRO), bilateral (BFTA) and regional (AFTA) are not effective in attracting FDI inflows into the region.

II. Chapter Outline and Contents of Dissertation Chapter 1 Introduction Chapter 2 The Impact of International Tripartite Rubber Organization (ITRO): Sub-Regional Level Analysis

Chapter 3 The Impact of Bilateral Free Trade Agreement (BFTA): Bilateral Level Analysis

Chapter 4 The Impact of ASEAN Free Trade Area (AFTA): Regional Level Analysis Chapter 5 Conclusion

Chapter 1 explains the background, objective and originality of the study. It takes slow progress of ASEAN regional economic integration and its complicated discriminative trade arrangements as the background. ASEAN was established in 1967. The ASEAN members signed its first Preferential Trade Arrangement (PTA) in 1977 and signed ASEAN Free Trade Area (AFTA) in 1992. Alongside with this slow progress ASEAN must deal with complicated trade arrangements in (1) exclusive economic cooperation that discriminate some member states, known as sub-regional cooperation, (2) exclusive direct Bilateral Free Trade Agreement (BFTA) between members and non-member states. BFTA also creates trade discrimination among the members that have BFTA and those without. This causes ASEAN to have to deal with complicated trade arrangements within members as every ASEAN member is free to have direct BFTA apart from its AFTA with non-ASEAN members. Nevertheless, ASEAN still has a vision to achieve an economic community called the ASEAN Economic Community in 2015, which will transform ASEAN economic cooperation from trade to comprehensive trade and investment integration. In order to achieve this vision, ASEAN is required to enhance her trade arrangement impacts on long-run investment inflows (FDI).

This study attempts to observe the impacts of discriminative trade arrangements on FDI inflows from three different levels: sub-regional, bilateral and regional. In line with its objective, this study gives original contribution as follows: (1) understanding the impact of sub-regional economic cooperation on FDI inflows in specific product (investment creation) using both the macroeconomic and microeconomic approaches. The results are complemented with field-survey and input-output table simulation, (2) identifying the impact of direct Bilateral Free Trade Agreement (BFTA) on own country's FDI (investment creation) by applying the Ordinary Least Squares method (OLS) to the time-series data, (3) discovering the impacts of ASEAN Free Trade Area (AFTA) on intra-regional trade (trade creation) and FDI inflows (investment creation) by applying the system of equations to the time-series data, (4) finding the impact of direct

Bilateral Free Trade Agreement (BFTA) on intra-regional trade. This is intended to examine the existence of a 'noodle bowl phenomenon' in Southeast Asia.

Chapter 2 focuses on sub-regional economic cooperation in Southeast Asia. Three member states of ASEAN, Indonesia, Malaysia and Thailand established an exclusive economic cooperation named the International Tripartite Rubber Organization (ITRO). ITRO regulates natural rubber in both the production side under Supply Management Scheme (SMS) and trading side under Agreed Export Tonnage Scheme (AETS) agreement. Both schemes are designed to enhance the market power of these three world major producers. This study attempts to observe the effectiveness of ITRO in attracting FDI inflows, in order to assess the impacts of sub-regional economic cooperation on FDI inflows in Southeast Asia. Strong market power of primary sector and homogenous product such as agriculture products are expected to stimulate FDI inflows. This study implements four methodologies to assess the impacts of ITRO on FDI inflows. First is macroeconomic analysis of panel data. This approach uses the establishment of ITRO in 2001 as a time dummy variable. This methodology adopted several macroeconomic variables in addition to time-dummy of ITRO and found that the establishment of ITRO gives negative impact on FDI inflows in the rubber sector. This probably indicates that ITRO does not have a strong market power. Findings on the impacts of other variables on FDI inflows are of interest; electricity capacity (+), exchange rate depreciation (-), quantity of natural rubber (+), and price of natural rubber (-). These findings confirm that natural rubber is in a competitive market (low market power of ITRO) rather than in a collusive market (high market power of ITRO). Furthermore this study adopts microeconomic methodology of the Cournot-Nash Equilibrium (CNE) to examine whether the global market of natural rubber is in collusive or in competitive environments. This study finds that world trade volume of natural rubber is higher than CNE following the establishment of ITRO in 2001. This finding confirms that natural rubber market is a competitive one and that ITRO had low market power. According to microeconomic theory, this makes rubber less attractive to the investors of FDI.

A field survey was conducted to analyze what actually happened in natural rubber market after the establishment of ITRO. The field survey takes Indonesia as a case study and uses an in-depth interview method to the respondents consisting of private sector (26 private companies of rubber), government officers who represent Indonesia in ITRO (Ministry of Trade and Ministry of Agriculture) and Indonesian experts of natural rubber. The survey results confirmed the previous findings of panel data and CNE that ITRO has low market power to execute its quota policies of both

over production and trade. There are two reasons for low market power. First, the production of natural rubber is controlled by the farmer therefore government as a representative of ITRO authority could not manage the market if excess supply occurs. Second, ITRO does not have a 'buffer stock system' in place due to its low storage technology level and this makes excess supply become even more unmanaged. Yet CNE and field survey could not prove whether the market has excess supply or not. This study adopts Input-Output table simulations to detect the possibility of excess supply and its negative impact on economic multipliers of profit, wage & salary and indirect tax at country level. Again, this study takes Indonesia as a case study. Comparing Indonesia's input-output table simulation for year 2000 (before the establishment of ITRO) and year 2005 (after the establishment of ITRO) shows that the decline in backward linkage (proxy to supply) of rubber was less than the decline in forward linkage (proxy to demand) of rubber. This made both the price and quantity decline. As a consequence,  $\pi$  (multiplier of profit), W/S (multiplier of wage/salary), and T (multiplier of indirect tax) decreased. The results obtained by using three different methodologies find that ITRO has low market power, therefore according to microeconomic theory it is ineffective in attracting FDI inflows.

Chapter 3 focuses on the impact of BFTA between ASEAN member state and non-member state on FDI inflows. This study adopts the ordinary least square method and finds that only Malaysia benefited from BFTA with non-member states. The results of other variables include the followings. Consumption level is found to have negative impacts on FDI inflows in Malaysia and Thailand. This shows that, at country level, consumption lead to trade instead of FDI (investment creation). Electricity capacity has positive impacts on FDI inflows of all observed countries. This shows that the importance of electricity capacity for all of the investors. Productivity (real wage) has positive impact on FDI inflows in Indonesia and Malaysia, while profits have positive impact on FDI inflows of Thailand. This indicates that productivity and FDI profit are important for the investors. Exchange rates have negative impact on FDI inflows of Indonesia and Thailand. This confirms that depreciation of local currency gives negative effect on FDI flows. Intra-regional trade has negative impact on FDI inflows for Thailand and confirms underutilization of AFTA by the investors at country level.

This study confirms that the impact of direct BFTA on FDI inflows is different among the member states. Several previous studies also reported similar findings that in ASEAN only advanced members such as Singapore and Malaysia are qualified to have BFTA with non-member states. Given that ASEAN has huge development gaps among the members and that BFTA gives unequal impact to the members, therefore BFTA

does potentially increase the development gap among the member states. This study concludes that BFTA is not appropriate to equally increase FDI inflows in the region.

Chapter 4 focuses on ASEAN Free Trade Area (AFTA). This study attempts to examine the impact of AFTA on both intra-regional trade (trade creation) and FDI inflows (investment creation) under two scenarios. The first scenario is direct impact of AFTA on FDI inflows. The OLS regression model result shows that AFTA has a negative impact on FDI inflows. Yet this result is statistically insignificant. The second scenario is direct impact of AFTA on intra -regional trade. The result of the analysis that employed Simultaneous Equation Model Estimator found the following relationship. Consumption has a negative impact on FDI inflows, indicating that increasing consumption decreases FDI inflows. Exchange rate is shown to have a negative impact on FDI inflows, indicating that local currency depreciation discourages investment creation. Productivity (real wage) has a positive impact on FDI inflows, proving the importance of labor productivity for investment creation. The size of population has a positive impact on FDI inflows, indicating the positive impact of the demand-pull on investment creation. Concerning the impacts of BETA on intra-ASEAN trade, the study finds the negative impacts. This finding appears to indicate two phenomena; one is a 'Noodle-Bowl Phenomenon' resulting from BETA on intra-regional trade and the other is BFTA's role as a 'stumbling block' to AFTA. Overall this study finds that AFTA has positive impact on intra-regional trade (trade creation). Meanwhile intra-regional trade has negative impact on FDI inflows (investment diversion/substitution) and FDI inflows also have a negative impact on intra-regional trade. This study finds that the intra-regional trade and FDI inflows are substitutes.

Chapter 5 summaries the major findings, and it presents concluding remarks. This study finds that sub-regional economic cooperation of the International Tripartite Rubber Organization (ITRO) is ineffective to attract FDI inflows. At the bilateral level, this study finds that direct Bilateral Free Trade Agreement (BFTA) between a member and non-member state is only effective for Malaysia and not for Indonesia and Thailand. BFTA creates unequal benefits among the member states and it increases development gap in ASEAN and endangers main purpose of regional economic integration for narrowing down the gap among members. This study also finds that BFTA gives negative impact on intra- regional trade, confirming that ASEAN is facing a 'noodle bowl phenomenon,' which results from its complicated trade arrangements. AFTA is effective in enhancing intra-regional trade (trade creation), but it is ineffective in attracting FDI inflows.

#### III. Evaluation

Preferential and discriminatory trade policies have become popular trade policy instruments in recent years. Among several types of such policies, free trade agreements (FTA), which remove barriers on trade between FTA members while maintain existing barriers for trade with non-FTA members, are most popular. Indeed, the number of FTAs in the world has increased tremendously during the last two decades. East Asia was a late comer in the FTA race. In East Asia, ASEAN Free Trade Area (AFTA), which was enacted in 1992, is virtually the first FTA. It was the 21<sup>st</sup> century, when East Asia saw a rapid expansion of bilateral and plurilateral FTAs such as Japan-Singapore FTA. Another type of preferential/discriminatory arrangement is an international cartel, under which members collude to limit the level of production or exports, in order to raise profits. ITRO is an example of this type of arrangement. Despite the differences in the forms, the members of AFTA and those of ITRO expected to attract foreign direct investment (FDI), because FDI would contribute to the promotion of fixed investments, technology transfer, and others, which would in turn promote economic growth.

This study examined if such expectation was realized. In other words, the study investigated the impacts of FTAs and ITRO on FDI inflows. FTAs that were taken up for the analysis include not only AFTA but also bilateral FTAs (BFTAs) involving ASEAN member countries. Using various statistical/econometric methods, the analysis found that contrary to the expectation of policy makers, ITRO, BFTAs or AFTA did not have positive impacts on FDI inflows. These findings, which contribute to the study of FTAs, have important policy implications for the policy makers in that FTAs are not effective in attracting FDI. Recognizing the important contributions this study makes, it author investigates the possible reasons why the if the preferential/discriminatory trading arrangements did not bring about the expected outcome. One possible reason may be that business people do not know the presence of such trading arrangement. Indeed, various studies have found that a lack of knowledge about the availability of FTAs is one of the most common reasons that companies do not use FTAs. If this is the case, the obtained results are not surprising.

Several future research agendas include the followings. The most important research agenda on the issue is to conduct sector- and firm- level analysis. The present study examines mostly macro-level data to investigate the impacts of FTAs and ITRO on FDI inflows. Motives of FDI by multinational corporations tend to differ by sector, thereby possibly leading to different reactions to FTAs. Market-seeking FDI, which is generally found in automobile sector, is likely to be discouraged by the enactment of

FTAs, because exporting would become easier with the elimination of trade barriers. On the other hand, efficiency-seeking FDI, which is generally found in electronics, is likely to be encouraged by the enactment of FTAs, because trade costs involving parts and components were to be reduced. Furthermore, a firm-level analysis would shed light on heterogeneous behavior by different firms. Such analysis would reveal important reactions by firms to the changing policy environment, which is induced by FTAs.

### IV. The Decision of the Committee

Considering the results of careful assessment of the submitted dissertation, which is presented in section III of this report, the oral presentation of the dissertation and subsequent discussions, which was held on November 24, 2011, the Committee members came to a unanimous decision that Kiki Verico, the author of the submitted dissertation, should be granted a Ph.D.

January 7, 2013

**Evaluation Committee** 

Main Examiner: Shujiro Urata Ph.D (Stanford University)

Professor, GSAPS, Waseda University

Deputy Examiner: Nobuhiko Fuwa Ph.D (University of California, Berkeley)

Professor, GSAPS, Waseda University

Examiner: Shunji Matsuoka Ph.D (Hiroshima University)

Professor, GSAPS, Waseda University

Examiner: Kazuhiko Yokota Ph.D (University of Colorado, Boulder)

Professor, School of Commerce, Waseda University