

博士論文審査結果報告
Report on Ph.D. / Doctoral Dissertation Defense

National Graduate Institute for Policy Studies (GRIPS)

政策研究大学院大学

Professor HOSOE Nobuhiro

教授 細江 宣裕

審査委員会を代表し、以下のとおり博士論文審査に合格したことを報告します。

On behalf of the Doctoral Dissertation Review Committee, I would like to report the pass result of the Doctoral Dissertation Defense as follows.

プログラム名 Program	政策分析プログラム Policy Analysis Program
学位申請者氏名 (ID) Ph.D. Candidate (ID)	SY Deborah Kim So (PHD19306)
Dissertation Title 論文タイトル (タイトル和訳)	Intended and Unintended Impacts of Minimum Wage Change and Foreign Direct Investment: A Computable General Equilibrium Model Analysis with Cross-border Factor Mobility in the Philippines 最低賃金と海外直接投資の影響と副作用: 国際間の要素移動を考慮したフィリピン経済に関する応用一般均衡分析
学位名 Degree Title	博士 (国際経済学) Ph.D. in International Economics
論文提出日/ Submission Date of the Draft Dissertation	2023年1月5日/ January 5, 2023
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論文最終版提出日/ Submission Date of the Final Dissertation	2023年2月22日/ February 22, 2023
審査委員会/ Doctoral Dissertation Review Committee	主査 Main referee 細江 宣裕 HOSOE Nobuhiro 審査委員 Referee XING Yuqing 審査委員 Referee 土谷 隆 TSUCHIYA Takashi 審査委員 Referee ESTUDILLO Jonna P. Professor, School of Economics, University of the Philippines 審査委員 (博士課程委員会) Referee (Doctoral Programs Committee) CHEY Hyoung-kyu

※ タイトルが英文の場合、文部科学省に報告するため、和訳を付してください

Please add a Japanese title that will be reported to MEXT.

1. Summary of Defense and Evaluation

This dissertation explores the roles of international mobility of capital and labor and the impacts of government policies in an open economy under the factor mobility assumption. Deborah Sy develops a computable general equilibrium (CGE) model with international factor mobility and examines its applicability to the open economy of the Philippines, which is known as one of the largest migrant-sending countries in the world. Her dissertation is made of two main components. In the static model analysis, she examines the effects of a 2% minimum wage increase on industrial output, employment, welfare level, and inequality in a general equilibrium setup. International migration brings remittances to improve welfare but at the same time undermines the potential for future economic growth by reducing the domestic labor supply. Motivated by this concern, in the dynamic analysis, she quantifies the effects of foreign direct investment (FDI), which is another type of international factor mobility, on job creation so as to reattract migrant workers who decide to go abroad due to the minimum wage increase. A 40% increase in FDI would be able to neutralize the negative employment effects of the minimum wage increase in the medium to long run. The injection of foreign capital would improve welfare but its impact would remain neutral on inequality incidence.

In this dissertation, she contributes to the literature by (1) demonstrating how a minimum wage increase would improve welfare through international migration, (2) finding that FDI impacts would be propagated to non-FDI host sectors and unskilled workers, (3) shedding new light on the impacts of minimum wages and FDI on inequality incidence in a migrant-sending country, and (4) finding that FDI would be an effective countermeasure against the unintended consequences of the minimum wage increase. Given these contributions, the doctoral dissertation review committee recommends that GRIPS award the degree of Ph.D. in International Economics to Deborah Sy.

2. Dissertation overview and summary of the presentation.

This dissertation explores the roles of international mobility of labor and capital and the impacts of government policies in an open economy under the factor mobility assumption. While many policy analyses employ multisectoral macroeconomic models, especially CGE models, to examine the impacts of various policies in an open economy, they usually assume the international mobility of goods and services but less often consider the international mobility of primary factors (i.e., labor and capital). Such framework is not suitable for policy analysis in the globalized world, where not only commodity trade but also FDI and international migration have gained tremendous importance. Labor and capital mobility can change the effects of policy interventions in ways that the government may not anticipate. Intended effects may be realized in a smaller or larger magnitude; unintended outcomes may follow. For macroeconomic policymaking, we need a new comprehensive framework with which we can assess policy impacts covering both intended and unintended outcomes. Her attempt is to develop a CGE model with international factor mobility and examine its applicability to the open economy of the Philippines, which is known as one of the largest migrant-sending countries in the world.

Her dissertation is made of two main components. She constructs static and dynamic single-country CGE models. They are elaborated so that she can analyze the role of international migration and FDI in the economy. In the static model analysis, she examines the effects of a 2% minimum wage increase on industrial output, employment, welfare level, and inequality in a general equilibrium setup. International migration is found to bring positive effects on the economy through remittance increases but to undermine the potential for future economic growth by reducing labor inputs in the domestic industries. Motivated by this concern, in the dynamic analysis, she quantifies the effects of FDI, which is another type of international factor mobility, on job creation so as to reattract migrant workers who decide to go abroad due to the minimum wage increase. While FDI host sectors are often expected to hire skilled workers, she predicts that unskilled workers would be hired by them as well. A 40% increase in FDI, which seems to be a reasonable policy target in light of the FDI evolution in the past two decades,

would be able to neutralize the negative employment effects of the minimum wage increase although it would take several years to accumulate capital enough to recover the lost domestic jobs. Further increases in FDI would make the minimum wage intervention unnecessary. Injection of foreign capital would improve welfare, particularly in the richest household group, but its impacts would be neutral on the inequality incidence.

She contributes to the literature in the following four points. First, she demonstrates how a minimum wage increase would improve welfare through international migration while the mainstream literature that presumes no international labor mobility predicts welfare losses due to domestic unemployment. Second, she demonstrates how FDI would impact not only FDI host sectors but also non FDI host sectors, esp. agriculture, and both skilled and unskilled workers. Third, she sheds new light on the impacts of minimum wages on inequality incidence in a migrant-sending country, while studies, including ones for the Philippines, report mixed results, and find the impacts neutral. Some studies find that the gap between the richest and the poorest household groups increases while other studies find that the gap decreases. Fourth, she finds FDI would be an effective countermeasure against the unintended consequences of the minimum wage increase.

She delivered her oral presentation and answered questions from the reviewers, including the external reviewer, Dr. Estudillo, who joined online, and the audience. While she was requested to address some points raised by the reviewers before the final submission, she completed the presentation successfully.

3. Evaluation Notes from the Doctoral Dissertation Review Committee (including changes required to the dissertation by the referees)

After her presentation, reviewers made comments and questions. The major ones are:

- (1) Clearly emphasize the contributions of this dissertation.
- (2) Clarify the mechanism of how the minimum wage increase encourages international migration.

- (3) Explain why the minimum wage increase affects the employment of clerical and technical workers.
- (4) Elaborate descriptions of migration, employment by foreign companies, minimum wages, and FDI in the Philippines.
- (5) Elaborate backgrounds of the assumptions of FDI increase so that the assumption is found realistic.
- (6) Examine the validity and behavior of the dynamic model.
- (7) Policy recommendations on taxation on remittance incomes should be written more carefully.

The committee gave a passing score of “5” in the median for her dissertation and agreed that she should make a minor revision by incorporating and addressing the above comments. The main referee is supposed to read through the revised manuscript for her resubmission.

4. Confirmation by the Main Referee that changes have been done to the satisfaction of the referees and final recommendations

The main referee confirmed that she completed the revision by addressing the abovementioned referees’ comments. The doctoral dissertation review committee recommends that GRIPS award the degree of Ph.D. in International Economics to Deborah Sy.