

# Report on Ph.D. Dissertation Defence

by

**Ryuichi Tanaka**

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Date of Submission:	June 23, 2015
Date of Dissertation Defence:	July 21, 2015
Time of Defence:	10:00 - 11:30
Dissertation Title:	Essays on the Dynamic Effects of Fiscal Policy on Output and Unemployment in the Presence of Labor Market Frictions and Labor Mobility Barriers: Theoretical Investigations and Empirical Studies
Main Referee:	Ryuichi Tanaka (The University of Tokyo)
Referees:	Julen Esteban-Pretel (City University of New York) Minchung Hsu Tetsushi Sonobe (Chairperson of Ph.D. Committee) Masaru Sasaki (Osaka University)
Date of Committee Meeting:	July 21, 2015
Result:	Pass (subject to minor changes)
Date of Report Submission:	August 6th, 2015
Degree Title	Ph.D. in Public Economics

## 1. Thesis Overview and Summary of the Presentation

While fiscal policy is one of the most important policies in real economy, our understanding about this conventional macroeconomic policy is not as much as what we originally think. This dissertation examines the dynamic effects of different categories of fiscal policy instruments on the aggregate economy in the presence of labor market imperfections both theoretically and empirically.

This dissertation consists of 6 chapters. Chapter 1 highlights the motivation, research

objective, backgrounds, and methodologies. Chapter 2 provides a general literature review and explicitly articulates the contributions of this dissertation.

Chapter 3 attempts to identify which component of government wage, consumption, and investment is the most effective in stimulating the economy and to understand its mechanism. Firstly, it investigates the heterogeneous dynamic effects of different spending components on output and unemployment through estimating a structural vector autoregressive model employing the U.S. data. The results indicate that government wage expenditure is the most effective in stimulating the economy. Then it develops a directed search model with heterogeneous government expenditures, calibrates the model to the U.S. economy, and simulates the model under counterfactual scenarios to understand the mechanism. The results indicate that expanding government wage expenditure is the most effective to stimulate output and unemployment because it affects labor market directly. This finding implies that raising government wage expenditure financed by lowering consumption expenditure could be an effective reallocation scheme to stimulate output and unemployment without increasing fiscal deficit.

Chapter 4 evaluates the impacts of changes in different categories of fiscal policies on the unemployment rate in Japan's 1990s using a dynamic general equilibrium model with search and matching frictions in the labor market, a productive government sector, and different categories of fiscal policies. Through simulations under counterfactual scenarios of the dynamics of government expenditures and tax rates, it finds that impacts of different fiscal policies on the unemployment were quantitatively heterogeneous and that countercyclical fiscal policies indeed contribute to cushion the labor market during the lost decade in Japan.

Motivated by the recent experience of China, Chapter 5 examines the potential impacts of removing labor mobility barriers, equally redistributing government education resource, and simultaneously changing these two policies on the interregional income inequality. It builds a two-region growth model with labor mobility barriers and unbalanced government education spending. The results indicate that simply removing the labor mobility barriers is insufficient to reduce the interregional income inequality and reallocating government education resources more equally is very important.

Chapter 6 states conclusions and discusses policy implications.

After an opening address by Professor Sonobe, the candidate presented the dissertation for about one hour. Questions from and discussion with the referees followed for about 40 minutes. Overall, the presentation was clear and well-organized. The candidate responded to the questions from the referees successfully.

## **2. Notes from the Examining Meeting (Including changes required to the thesis by the referees)**

The examination committee had a meeting immediately after the defense. The dissertation committee members were Professor Minchung Hsu, Professor Tetsushi Sonobe (the chairperson of the Ph.D. programs committee), Professor Julien Esteban-Pretel (City University of New York, Queens College), Professor Masaru Sasaki (Osaka University), and Ryuichi Tanaka (The University of Tokyo). Professor Julien Esteban-Pretel was the main advisor of the candidate until August 2014 when he left for the CUNY. Professor Masaru Sasaki, an external examiner, is an eminent professor with expert knowledge about labor economics and the literature of labor search theory. Ryuichi Tanaka remains as the main advisor of the candidate after I left for the University of Tokyo on April 1<sup>st</sup>, 2015.

The referees praised the novelty of the work and unanimously agreed that the dissertation was worthy to a pass: the marks that committee members gave his dissertation ranged from 4.5 to 5.0 and averaged 4.8, which was far above the passing mark of 3.0. Nevertheless, they had comments and suggestions for further improvements. The comments and suggestions are listed below.

(1) In Chapter 3, some parameters of the model are taken from the literature. As they are important to quantitative results, it is better to provide some comments on the sensitivity of the results.

(2) In Chapter 4, explicit statement is needed to explain why it focuses on the interaction between private and public sectors. In particular, it should justify the importance of the analysis of interaction between public and private sectors rather than part-time/full-time job interaction.

(3) The character of declining total factor productivity (TFP) should be explicitly stated in the introduction section of Chapter 4, in order to let the readers know the driving force of the lost decade in Japan because low rate of economic growth seems more important phenomenon to describe the lost decade in Japan.

(4) It is better to state explicitly in the acknowledgement that Chapter 4 is a part of joint project with Professor Julen Esteban-Pretel and Ryuichi Tanaka.

(5) There are typos in the dissertation, which should be corrected before submitting the final version in August.

The referees agreed that the supervision of the changes and the tasks of checking their acceptability should be delegated to the main referee.

### **3. Confirmation by the Main Referee that changes have been done to the satisfaction of the referees.**

The candidate has exerted sincere effort to further improve the dissertation. The revised dissertation as well as the detailed list of point-to-point changes in responding to the comments and suggestions were submitted to me on July 31st, 2015. As the main referee, I checked the changes very carefully. Now I can confirm that all the required revisions have been made by the candidate.

### **4. Final Recommendation**

Pass.