

Policy Research Center  
Research Project  
Accomplishment Report

【資料 3-1-2 ③】

Date: 2017/2/16

Name Title Affiliation

Project Leader: Minchung Hs Associat GRIPS

Research Project Title:

Income Inequality and Optimal Income Tax

Project duration:

2015/4/4 ~ 2017/3/31 2年間

Project Participants:

Name Title Affiliation

Leader Minchung Hs Associat GRIPS

Participant 1 CC Yang Distinguished Research fellow, Academia Sinica

Participant 2

Participant 3

Participant 4

Participant 5

Project aims and goals:

The literature of optimal taxation has debated about the degree of progressivity that the income tax should have. Recently, because of the heavy government financing burden, major European economies (eg. France and Spain) have planned to increase the tax rates for high income earners. France even planned to set a 75% tax rate for top income earners. However, previous studies in the optimal income tax literature found a striking result that the marginal tax rate for the top income earners should be zero due to the economic efficiency.

The equity-efficiency trade-off is conventionally the center of the optimal income taxation literature, which is pioneered by Mirrlees (1971, Review of Economic Studies). Progressivity improves the equity by redistribution from the rich to the poor, but high marginal tax rates discourage the labor supply from productive workers. Saez (2001, Review of Economic Studies) developed a simple approach by using elasticities to derive optimal tax rates and showed that the optimal high income tax is positive and generally above 40%. Our project is to extend Saez's approach and generalize it to a dynamic stochastic general equilibrium environment with heterogeneous agents, in which the income/wealth distributions match the data.

Furthermore, with taking into account a country's household income dynamics and level of inequality, the method can be applied to different countries and we can provide a cross-country comparison of optimal tax system design.

Because Saez illustrates the optimal design of income tax in a static world, the behavior changes of individuals are not taken into account. With a dynamic model, we are able to consider the responses from individuals to a tax schedule over time that is important for constructing the optimal tax schedule. Some recent studies have tried to extent the discussion of optimal taxation to a dynamic environment. Golosov, Troshkin and Tsyvinski (2011, NBER working paper: R&R to AER) is one example. They suggest that the marginal tax rate for high income earners should be close to zero, which largely deviates from Saez's finding. In this project, we plan to model both labor and saving decisions in a dynamic framework to investigate behavior changes and tax distortions for the design of tax system.

In addition, the equity-efficiency trade-off is always the focus of the optimal taxation literature, but the real income/wealth inequality is rarely discussed for the design of the optimal tax schedule. We plan to carefully take into account the inequality in the real world through a comprehensive data analysis.

Accomplishment of Project(in 400 words):

1. Because how the income heterogeneity is determined is important for optimal tax system design, we conducted an empirical study to identify how much heterogeneity is due to luck (uncertainties) and how much is determined by pre-existed conditions.
2. Based on the empirical analysis, we calibrated/estimated the model to perform quantitative exercises.
3. We have investigated the optimal income tax schedule. We found optimal income tax for top income earners given other tax rates as in the benchmark. We also extended the approach to other income levels.
4. We studied how the inequality and the uncertainty affect the optimal tax schedule.

## List of Accomplishment

(including forthcoming )

**Article**

Academic papers (including those published in general journals)

0 in total		The number of referred article		0	0		0		0	
Author	Title	Publisher	Vol/N o/Pag	Date of Publications	Start page	Finish page	Referee Report	Internationa l joint	DOI	Open Access
1						-				
2						-				
3						-				
4						-				
5						-				

**Book**

\*For collaboratively edited or authored books, please underline your name.

0 in total					
Author	Title	Publisher	Date of Publications	Total pages	
1					
2					
3					
4					
5					

**Verbal Report**

\*Please report peer-reviewed academic conference papers in "Article" category. Please report non-peer-reviewed academic conference

5 in total					
Name	Title	Name of the workshop	Report Date	Venue	
1	Minchung Hsu	Reforming Medicaid Long-term Care Insurance	AEA 2017 Annual Meeting	2017/1/6	Chicago
2	Minchung Hsu	Aging, Taxation and Population Policy in Developing Economies	Asian Development Bank Institute and Asian Growth Research Institute Workshop on Aging in Asia	2016/11/16	Kitakyushu
3	Minchung Hsu	Financing Aging in Developing Economies: Feasible Taxation and Optimal Population Policy	Taiwan Economic Research Conference	2016/8/9	Taipei
4	Minchung Hsu	Financing Aging in Developing Economies: Feasible Taxation and Optimal Population Policy	Econometric Society Asian Meeting	2016/8/12	Kyoto
5	Minchung Hsu	Financing Aging in Developing Economies: Feasible Taxation and Optimal Population Policy	2016 Growth Trade and Dynamics Conference	2016/6/24	Taipei
6					