

Humanities and Social Sciences: After

Taiwan is like many growing countries in Asia – it must feed an expanding population and support growing social welfare expenditures despite a declining population. Taiwan has one of the lowest fertility rates in the world, which combined with greater life expectancies, may create huge labor shortages in the future. My goal is to conduct economic research on the issue of aging to develop potential solutions to reshape Taiwan's economy. This passion has motivated me to apply for the doctoral program in economics from *****.

My father was an economics professor at ***** University who inspired me to apply economic principles to the field of agriculture. My grandfather was a farmer, and my summer visits with him showed me how farmers use rational economic principles to select their crops, utilize labor, and maximize profits. Despite the farmer's "rational" behavior – farmers struggle economically in Taiwan. My interest in applying economic principles to agricultural problems encouraged me to major in Agricultural Economics at ***** University.

As a freshman, I worked as a volunteer for a "Rural Education Service Team" (REST) designing curriculums in English and time management for rural children. During my first summer in college, I spent time in ***** County, one of Taiwan's poorest areas. I noticed that grandparents cared for most of the children. The reason was simple: the parents were too busy earning their modest salaries in the cities, and did not have time to take care of their kids. According to the Accounting and Statistics Department of Taiwan, the average age of farmers in Taiwan is 61, which is expected to be 71 by 2030. The importance of aging on the economy encouraged me to switch my focus from agriculture to the broader question of an aging workforce. After reaching this realization, my renewed passion allowed me to improve my grades significantly, and I embarked on several interesting research projects.

I completed an Independent Study course offered by professor *****. My topic was "The Influence of 7-11 Special Bonus Points for Great Rewards Activity on Clients' Buying Preferences in Taiwan." I created a questionnaire to survey consumer's attitude about marketing. Before releasing the final version of the questionnaire, I carefully examined every question to avoid misleading test takers. I used a variety of collection methods including the Internet, and even collecting data from people on the side of the road. I then used descriptive statistics and regression analysis to analyze the data. Professor ***** gave me a very high score for my originality, and my ability to present interesting conclusions.

This past summer I worked as a research assistant at the Institute *****. Under Dr. ***** guidance, I analyzed economic statistics for the European Union, China, and Japan, and wrote short reports on macroeconomic issues. In one report, I described economic issues in China, including uncollectible bank accounts and negative real interest rates. To complete this assignment, I reviewed hundreds of pages of global economic news, and studied published government data. This experience demonstrated how China's financial markets are still underdeveloped relative to established markets in Europe and Japan.

I am a firm believer in a multidisciplinary education to understand economics. I double majored in Psychology and Agricultural Economics, and completed courses offered by the Quantitative Finance Program. To enhance my mathematics ability, I completed courses in *Advanced Calculus*, *Advanced Statistics* and *Linear Algebra*. I was rewarded with my diligence and dedication by receiving two Presidential Awards from ****, which is given to students in the top 5% of their graduating classes. This demonstrates that I can handle a rigorous academic workload and the pressures of studying at an elite university like *****.

I would like to focus my graduate studies on the effects of aging on the economy. In Taiwan, aging has had a tremendous impact on the financial expenses of public retirement pension programs. This has caused a transition from defined benefit plans to defined contribution plans to limit government liabilities. Aging also has placed a significant financial strain on the government healthcare program. To subsidize these social welfare programs, governments must either increase tax revenues, either by raising the income tax rate or by elevating the consumption tax rate, or reduce the spending on other public goods. Increasing tax revenues will reduce the investment incentives for entrepreneurs and therefore, negatively affect labor demands. The “deadweight loss” will decrease social welfare and the reduction in the investment will affect the equilibrium for labor employment resulting in a decrease of aggregate output. The fact that older adults consume less also has negative consequences. The diminished demand for products could result in lay-offs and increased unemployment.

The decrease in the fertility rate combined with an increase in life expectancy has long-term implications on the labor supply. The size of the working population will naturally decline. However, fewer children may increase the standard of living, and allow parents to spend more money on education. This will increase the “human capital” for future generations. While the future labor supply will be scarce, the quality of the labor will increase. Clearly, the aging problem affects all areas of economics including the expense of social welfare programs, the tax structure, aggregate demand, aggregate output, and the labor supply. My goal is to study these phenomena to develop my own theories about how countries with lower fertility rates can succeed in a competitive global environment. The simulation techniques and computer programming skills that I learned from the Quantitative Finance Program will enable me to apply a dynamic stochastic general equilibrium modeling approach to quantitatively investigate impacts of aging on public finance and the macroeconomics of an economy.

I have selected ***** due to its international reputation, and economics scholars. I am especially impressed with ***** research on aging, Professor ***** research on public finance, and Professor ***** work on macroeconomics. I am confident my passion and enthusiasm combined with my unique background will make me a valuable addition to your program.