

Abstracts

Labor Supply, Public Finance, Social Security, and Economic Growth in a Shrinking Society

Ryoji Hiraguchi (Meiji University)

In this paper, we provide a theoretical overview of the relationship between labor, public finances, social security, and economic growth in an aging and shrinking society. First, we explain several basic economic growth models to study the effects of population decline and aging on economic growth. Theoretically, the biggest negative impact of population decline on economic growth is that the number of people in a R&D sector decreases and the stock of ideas in the economy stagnates. On the other hand, although aging has a positive effect on economic growth through an increase in the savings rate, there is a risk that the birthrate will decline because people will put more importance on their own future consumption. Next, we explain the effect of government debt on economic growth both empirically and theoretically. In theory, the impact of the government debt on economic growth is generally negative, except when debt is used to finance public capital. Finally, we provide some suggestions for the current Japanese economy. Specifically, we point out the need to improve the quality of labor through human capital accumulation to compensate for population decline, enhance automation to link aging to economic growth, and improve fiscal condition.

Three Decades of Population Policy in Japan: A Comprehensive Analysis

Tsukasa Matsuura (Chuo University)

While the Total Fertility Rate (TFR) has consistently remained below 2 since 1975, the problem of low birth rate was not recognized in Japan until the “1.57 Shock”. After the shock, the government implemented various measures to address the issue, but the decline in birthrates has shown no signs of abating. Furthermore, regional disparities in birthrates widened, with the East of Japan experiencing notably lower birthrates. The Tohoku region in particular is predicted to face exacerbated population decline and aging in the future. This paper first delves into the history of policies for low birthrates after the 1.57 Shock, categorizing them into four phases: the 1990s, the pre-Democratic Party era of the 2000s, the Democratic Party administration, and the period after the second Abe Cabinet. Second, it examines the period from the mid-2010s when “regional revitalization” became a policy goal, with a focus on birthrates and population movements. Surprisingly, during this time, birthrates in the Tohoku region significantly declined, accompanied by an increase in the outmigration rate of young women. Third, the paper comprehensively surveys recent empirical studies on policies for low fertility outlining trends consistent with prior research. Lastly, based on these observations, the paper identifies seven key points that should be considered in future policies for low birthrates.

An Economic Analysis of the Determinants of Marriage Using Data on Singles and Married Couples

Wataru Suzuki (Gakushuin University)

Soichiro Kojima (the Economic and Social Research Institute)

This paper analyzes the determinants of marriage using the Survey of Fertility Decline and Women’s Activities on Economic Perspectives, designed and conducted by the Economic and Social Research Institute (ESRI) of the Cabinet Office, Government of Japan, in March 2024. This data is unique in that it has abundant information on marital environments and attitudes toward marriage. In particular, we obtained retrospective data for married respondents about the circumstances when they started a relationship with their spouse, making it possible to compare circumstances between respondents who are currently single and those who are married now. The probit regression analysis shows that supply-side factors as well as demand-side factors and the matching environment affect marriage probability for men and women. Hence, policies that clear barriers related to these factors could be highly effective in promoting marriage. Turning to the three orthodox hypotheses regarding marital behavior, we find that the

“opportunity cost hypothesis” is generally supported for women, while the “time constraint hypothesis” is not. The “parasite singles hypothesis” was supported solely in the case of men.

Full-Time Employment under the Employees' Pension Insurance System for Workers in Their Early 60s and Wage Inequality: Literature Review and Analysis Based on Anonymized Pension Data

Atsuhiko Yamada (Keio University)

Masato Shikata (Kwansei Gakuin University)

Using the Anonymized Pension Data created by the Pension Bureau of the Ministry of Health, Labor and Welfare as a panel data set, we examine how the increase in the male full-time employment rate (the ratio of continuous coverage under the Employees' Pension System) in their early 60s differed for each wage quintile at age 58 and what wage changes they experienced in their early 60s. Our results indicate that the increase in pensionable age reduced the gap in full-time employment between wage quintiles, and furthermore, that the relative decline in wages of the highest wage quintile reduced the wage gap in full-time employment in people in their early 60s. However, it would be premature to conclude that the increase in pensionable age has reduced income inequality at older ages, since the fixed portion (the first tier) of the public pension, which is not available for people in their early 60s after the increase in pensionable age, itself played a role in reducing income inequality before the reform. However, if full-time employment among the lowest wage quintile extends the period of contribution to Employees' Pension Insurance, and if higher wages are earned, it is expected that the amount of Employees' Pension benefits will also be higher and may lead to less income inequality.

The Relationship between Automation Technology and Work in a Society with Declining Population: An AI Case Study in Japan

Masayo Fujimoto (Doshisha University)

This paper examines the problem of labor shortages due to population aging and the impact of automation technology usage, especially AI, on the workplace, showing survey examples. Examples from agriculture, fishing, construction, and transportation as industries with a significant aging population as well as the medical and welfare industries, where there is a shortage of care workers, are shown to have improved overwork by using AI to improve labor shortages. In addition, examples of improvements in long working hours in medical professions, where problems such as medical errors are serious due to oversight, and in advanced and complex analysis, have been shown. However, in the use of AI, there were problems of overlearning and regional disparities in computer literacy. In the use of AI for economic efficiency, there were examples of neglect of women's jobs and substitution of specialized work. The discussion and conclusion describe the improvement in the overworked people, loss or burial of knowledge and skills in industries with labor shortages; the impact of automation technologies not only on unskilled workers, but also on professionals; and that polarization can occur between employment positions, rather than between high and low skills, and that there will be a trend in demand for semi-skilled white-collar jobs in the future.

Impact of Population Aging and Automation on the Labor Market: A Survey

Mingyu Jiang (Fudan University)

Shinpei Sano (Kobe University)

Population aging affects the labor market not only through changes in the composition of the labor force but also through changes in the composition of capital. At the same time, technological change affects the labor market through its impact on labor and capital. While studies on demographic change, technology, and the labor market are central in the study of labor issues, many studies have been conducted in recent years on the impact of adopting automation capital, represented by industrial robots, reflecting recent population aging and technological progress. The purpose of this paper is to review recent studies on population aging and the impact of automation and labor markets. Population aging is associated with the adoption of automation capital. Empirical studies

in different countries show that the adoption of automation capital has negative effects on employment in some cases, while in others no such trend is observed. It is suggested that these differences in results across countries are due to differences in the industrial and occupational structure of each country. Automation affects workers' wages, human capital accumulation, and occupational choice by changing the relative cost of jobs. Furthermore, several studies suggest that automation has a different impact on younger and older workers.

How Is Active Fulfillment of Corporate Social Responsibility Evaluated in the Job Market?

Masaaki Kawagoe (Nihon University)

Akiko Kojima (The Japan Research Institute)

While companies have become more proactive in addressing social challenges in recent years, they also have strong concerns about how these efforts will be evaluated in the markets. We used two methods to examine how these efforts were evaluated in the job market. First, we examined how Toyo Keizai CSR scores exerted influence on graduating students' employer rankings in 2017 and 2021. Robust results were not obtained: some significant effects obtained in the pooled data were lost in its reformulated panel data. Second, we analyzed individual data of an awareness survey conducted by the Institute of Economic and Social Systems in 2021. Specifically, conjoint analysis enabled us to measure students' willingness to pay (WTP) for these efforts through their choice of employers. Female students' WTP for actively promoting work-life balance (WLB) and diversity turned out to be 13,000 yen, equivalent to 6% of their monthly scheduled earnings in their early 20s. However, there were no other robust or significant results. This result held in expanded data, including other young people in their teens and 20s. Thus, we concluded that students did not highly evaluate companies' efforts to address social challenges in the job market in general, with some notable exceptions.