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研究課題名(和文)日本の不況期において政府が労働市場において果たした役割の評価

研究課題名(英文)Assessing the Role of Government in Japan's Labor Market Change during Recent Severe Recessions

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研究成果の概要(和文)：本プロジェクトは、1980年代以降の日本の労働市場の変化と、その形成における政策の役割について調査を実施した。実証分析では、失業率変化の主な要因は離職率の上昇であった一方、就業率減少は高齢化を一因とする非労働力から就業への労働者の移行の低下が要因であることが明らかになった。理論的研究では精巧なモデルを構築し、政策の法的強制力の重要性、労働市場における労働者年齢の役割等の問題、さらに政策は日本の構造変化の要因ではないものの、失われた10年における失業率のさらなる上昇を抑止したことについて解説した。本研究結果は国内外の会議やセミナーで発表を行ない、国際的に評価の高い学術雑誌に論文が掲載された。

研究成果の概要(英文)：This project studied the changes in Japan's labor market since the 1980s, and the role of government policies in shaping them. Our empirical analysis showed that the changes in unemployment were mostly driven by the increase in job separations, whereas the decrease in participation was accounted by the drop in workers moving from inactivity to employment, which is partially explained by the aging of the population. In our theoretical work we developed sophisticated models and explained issues such as the importance of enforceability of policies, the role of the workers' age in labor market outcomes, and that while government policies cannot account for the structural transformation of Japan, they did prevent unemployment from going even higher than it did during the Lost Decade. All the results of our project were presented in conferences and seminars in Japan and overseas, and eventually published in highly ranked international journals.

研究分野：マクロ経済、労働・金融経済学

 キーワード：Government Policies Labor Market General Equilibrium Search and Matching Worker Flows
 Population Aging Lost Decade

1. 研究開始当初の背景

Over the long-recession of the 1990s Japanese unemployment rose by 2.5 times and has remained high ever since. Some age groups such as young and old were more affected by this increase, as were women compared to men. During these recessionary periods when the labor market suffered so much the Japanese governments did not stay idle and implemented several policies to counteract the deep and prolong recession. Such measures included, the increase of general government expenditures to stimulate demand, the rise of expenditures that directly involved the hiring of workers, and the enactment of regulations that allowed for higher flexibility in the labor market in terms of hiring and firing of workers. Some of the previously mentioned government interventions have frequently come under criticism due in part to their potentially undesirable side effects, such as the increase in government debt or the rise of contingent employment. Up until our project, most of the existing research has focused on fiscal policies within DSGE models with competitive labor markets. However, none of the papers in the existing literature had modeled issues such as age, gender, different contract lengths and a realistic government as a potential employer into a general equilibrium framework to analyze the effects of simultaneous government policies in times of deep recessions.

2. 研究の目的

The purpose of this research is to thoroughly study the changes in the Japanese labor market during the deep and

prolong recession of the 1990s and quantitatively assess the role that government policies may have played in avoiding or inducing such changes.

3. 研究の方法

To achieve our research project goals, the project was divided into an empirical phase, implemented first, and a theoretical phase, implemented last. In the empirical phase we used microeconomic data, as well as government policy data, and used econometric techniques to understand the changes in Japan's labor market during the last two decades, as well as the policies put in place by the government during this time. In the theoretical phase, we built models based the neo-classical growth literature with search frictions in the labor market, and realistic government interventions. We carefully calibrated and simulated these models, performing counterfactual simulations to understand the effects of each policy in the changes observed in the labor market since the 1990s.

In order to put Japan's 1990s experience in context, we additionally performed similar analysis for other countries, both developed and developing economies. We also analyzed Japanese government policies during other time periods.

4. 研究成果

This research project had the goal of studying the changes that took place in the Japanese labor market during the deep and prolong recession of the 1990s and assess the possible role that certain government policies may have played in such changes.

To this end we divided the project into two phases, and empirical one to be conducted first, and a theoretical one to be conducted subsequently.

At the start of the empirical phase we applied to the Japanese government for the use of the household survey data contained in the Labor Force Survey. We used the Labor Force Survey to study the major changes that occurred in the Japanese labor market from the 1980s to the end of the 2000s. We constructed worker flows time series to analyze the impact of such flow rates in the evolution of important variables such as the unemployment and participation rates. We disaggregated the analysis as finely as was possible given the data and looked at each variable by age, gender, region, type of job, sector of employment and size of employer. We performed econometric analysis to understand the extent to which the changes that took place over the 1990s had become permanent or if they had been reversed. We also performed counterfactual simulations to study the possible effects that demographic changes may have had on the changes observed over the Lost Decade. Our analysis concluded that the effects of the recession of the 1990s on variables such as the unemployment and participation rates were permanent. We found that the increase of the job separation rate was mostly responsible for the increase in unemployment, and that the drop in the participation rate was mostly due to the drop in the flow rate from inactivity into employment. Finally our paper also shows that the unemployment rate did not seem to be affected by the aging of population,

whereas the drop in the labor force participation rate and the employment to population ratio were heavily influenced by population aging. Our results for this phase of the project were eventually written in a paper entitled: "Changes in Japan's Labor Market during the Lost Decade and the Role of Demographics," jointly written with Ryuichi Tanaka and Xiangcai Meng. This paper has been sent for publication and is currently under review at a highly internationally ranked journal. Preliminary versions of the paper and of our results were presented in several international conferences as well invited seminars in both Japan and overseas. Using the invaluable feedback that we received in these presentations, we perfected our analysis until the finished paper.

With the information gathered about the labor market changes in the 1990s, and the time series of worker flows created in our analysis, we started the second phase of the project. In this theoretical phase we worked on several papers to study the effects of government policies in the labor market. Each paper had a slightly different focus, but they were all part of big picture of the project.

To understand how policies interact with the labor market we studied the importance of policy enforcement. The paper entitled "Job creation and job destruction in the presence of informal markets", joint with Mariano Bosch, and published at the Journal of Development Economics, was the first of two papers on this topic, which also included the paper entitled "The Labor Market Effects of Introducing

Unemployment Benefits in an Economy with High Informality", also joint with Mariano Bosch and published at the European Economic Review. In these two papers we show that in order for government policies to have their full effect on the labor market, enforcement of regulations and laws is crucial. If such enforcement does not take place, policies do not achieve the desired goals since their effects get diluted.

As learnt in the empirical phase of the project, workers of various ages suffered very differently the effects of the 1990s recession. To evaluate the interaction between age and labor market outcomes we constructed a very innovative model that merged the search theoretical frameworks for the labor market with the age structure of overlapping generation models. This line of research delivered two papers: "Life-Cycle Labor Search with Stochastic Match Quality," and "Life-Cycle Search, Match Quality and Japan's Labor Market," both joint with Junichi Fujimoto and published at the International Economic Review and the Journal of the Japanese and International Economies, respectively. In these papers we show how young workers are more vulnerable to shocks to the economy, such as the recession of the 1990s, due to their limited experience. We also find that for older workers losing their employment can have a big impact in their careers, as the possibility of re-employment drops drastically close to retirement due to the fact that firms know that if they hire an older worker he would not be employed for long, and it be hard to recover the hiring costs. These two

models explained with a sophisticated theoretical framework some of the age-related empirical facts found in the initial phase of this project, and studied the effects of big recessions on a labor market where the age of the worker is an important factor.

In order to analyze Japan's government policies and their effects on the labor market, we not only studied recent policies, but also looked at historical data to understand other instances where the government may have played a role in shaping the labor market. In our paper "On the Role of Policy Interventions in Structural Change and Economic Development: The Case of Japan's Postwar," co-authored with Yasuyuki Sawada, we study several taxes and subsidies, as well as other government policies, to evaluate their role in Japan's structural transformation. Such transformation took place in Japan following World War II, when the country moved from an agricultural-based economy to a more modern manufacturing and service oriented one. We found, however, that the role played by the studied taxes and subsidies was very limited in accounting for the structural transformation of the economy. Most of the change can be explained by the extraordinary growth of total factor productivity (TFP) during this period.

While our study for post-war Japan showed the limited role of government policies in affecting the structural transformation of the Japanese economy, our analysis of the Lost Decade found that some of the

policies implemented during the 1990s did have an impact in the labor market. In our paper entitled “Fiscal Policy Changes and Labor Market Dynamics in Japan's Lost Decade,” joint with Xiangcai Meng and Ryuichi Tanaka, we study the effects of several government policies on the evolution of the labor market during the 1990s. We build, calibrate and simulate a search and matching model with a productive government sector and find that if the government had not spent as much as it did during the Lost Decade trying to get the economy out of the recession, the unemployment rate would have been larger than it was, possibly reaching as high as 6%. Particularly important is the role played by the increase in government consumption expenditures. This paper, which has been presented in several conferences and seminars in Japan and Europe, is currently submitted for publication and is under review at a highly ranked international journal.

Overall, our research project achieved the goals it set out to obtain, although we are still working on expanding our work even further. We now have a better understanding of how the Japanese labor market variables and worker flows evolved over the Lost Decade and the role played by the government and its policies in shaping those changes. Our results were presented and disseminated in conferences, workshops and seminars across Japan and the world and were published in highly ranked academic journals, which is sure to influence future research and policy.

5 . 主な発表論文等

[雑誌論文](計5件)

“The Labor Market Effects of Introducing Unemployment Benefits in an Economy with High Informality”, M. Bosch and J. Esteban-Prete. *European Economic Review*, April 2015. (査読有)

<http://dx.doi.org/10.1016/j.euroecorev.2014.10.010>

“Life-Cycle Labor Search with Stochastic Match Quality”, J. Esteban-Prete and J. Fujimoto. *International Economic Review*, May 2014. (査読有)

<http://dx.doi.org/10.1111/iere.12062>

“On the Role of Policy Interventions in Structural Change and Economic Development: The Case of Japan's Postwar”, J. Esteban-Prete and Y. Sawada. *Journal of Economic Dynamics and Control*, March 2014.

<http://dx.doi.org/10.1016/j.jedc.2013.12.009> (査読有)

“Life-Cycle Search, Match Quality and Japan's Labor Market”, J. Esteban-Prete and J. Fujimoto. *Journal of the Japanese and International Economies*, September 2012. (査読有)

<http://dx.doi.org/10.1016/j.jjie.2012.06.003>

“Job creation and job destruction in the presence of informal markets”, J. Esteban-Prete and M. Bosch. *Journal of Development Economics*, July 2012. (査読有)

<http://dx.doi.org/10.1016/j.jdeveco.2011.08.004>

〔学会発表〕(計 10 件)

J. Esteban-PreteI. Workshop ANECO
-2015, July 8, 2015, Valencia, Spain

J. Esteban-PreteI. The Canon Institute
for Global Studies Conference on
Macroeconomic Theory and Policy 2013,
June 24, 2013, Chiyoda-ku, Tokyo,
Japan

J. Esteban-PreteI. University of
Valencia, Workshop in Economics,
September 13, 2013, Valencia, Spain

J. Esteban-PreteI. University of Tokyo
Workshop in Economics, October 3, 2013,
Bunkyo-ku, Tokyo, Japan

J. Esteban-PreteI. Keio University
Workshop in Economics, November 2,
2012, Minato-ku, Tokyo, Japan

J. Esteban-PreteI. Tohoku University
Workshop in Economics, October 31,
2012, Sendai, Miyagi, Japan

J. Esteban-PreteI. University of Tokyo
Workshop in Economics, October 18,
2012, Bunkyo-ku, Tokyo, Japan

J. Esteban-PreteI. FEDEA Workshop in
Economics, September 4, 2012, Madrid,
Spain

J. Esteban-PreteI. Designing
unemployment protection systems in
high informality countries, July 9,
2012, Washington DC, USA

J. Esteban-PreteI. 23rd Annual NBER
East Asian Seminar on Economics, June
15-16, 2012, Taipei, Taiwan

〔その他〕

ホームページ等

<http://www3.grips.ac.jp/~julen/>

6. 研究組織

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