

## A New View of Japan's Childlessness

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### 要 旨

日本では昨今、少子高齢化問題が注目されている。日本政府は少子対策問題担当相を設置し、また関連社会団体も多く設立されている。さらに、マスコミでもこの問題が大きく取り上げられ、これらに関する研究が盛んに行われている。

本論では、少子化の根本的な原因として、日本経済の構造変化を考察した。まず、工業化の進行につれて労働集約度の高い第1次産業のシェアが低下し、日本経済は労働力集約型から知識集約型へ転換した。そして、都市化が進み、娯楽が繁栄し、その結果として出産率が低下した。また、知識集約型産業に応じ、日本人の高学歴化が進んだ。高等教育の普及は晩婚化の一因になるし、家庭教育費用の増加も少子化を促す。最後、第3次産業に非正規労働者が増え、低収入者の数が増えることにより結婚相手が探せなくて、非婚化につながる。つまり、少子化は産業構造変化の反映であり、政府政策によって容易に解決できる問題ではない。

しかし、長期的な視点でみれば、筆者は人口の減少が合理的であると考ええる。日本の人口は、1900年の4千万人から増加の道を辿ってきた。人口増加が人口密度を増大させ、生活の質を低下させるため、無制限の人口増加は歓迎されるものではない。今の社会保障制度は、人口の無制限増加を想定しているため、改革が必要であると思われる。

**Keywords: Childlessness, Industrial Structure Change, Sustainability**

### Introduction

This paper views the childlessness in Japan from a new stand. Firstly, it attempts to analyze the main reasons of childlessness in Japan with industrial structural change approach. The Japanese economy changed from labor-intensive in the 1950's to technology-intensive currently. And with the change of industrial structure, the population concentrated in the three huge areas of Tokyo, Nagoya and Osaka. Another result of the change is highly-educated workers are more and more needed. However, sending children to obtain higher education becomes a heavy burden for Japanese families. Many couples decided not to give birth to babies. It contributed mainly on childlessness. Furthermore, compared with

the labor-intensive society, marital age became late because the youth have to go to college to obtain the high education.

Another structural change is that the third sector developed. With the development of the third sector, it became possible for more women to participate in the society. Because women earn salaries to support their economic life, many of them chose not to marry but enjoy single life. Meanwhile, non-fulltime employment increased. It expanded the income gap and made it more difficult for the low-income people to enter marriage and even give birth to more babies.

Secondly, we propose that childlessness is not a serious problem in the long term. Japan's population has been increasing from 1900. It is impossible to unlimitedly increase the population. Besides, compared with European countries, 130 million is very huge and Japan's population density is one of the highest in the world. Population decrease may contribute to increasing the social welfare and enrich lives. Therefore, we should analyze the population problems not in short but in long term view.

Finally, this paper points out that the real problem with childlessness is on social security. Until now, Japan has adopted a pay as you go system. It is becoming less suitable for the current society because this system is based on the assumption that the population will increase forever. Many revolutions are seemingly good, for example, widening the younger generation and accepting greater immigration, and expanding the taxation. However, each approach has its problems and troubles. In short, there are no easy answers. Pension reform is thus linked to reform of the welfare system as a whole.

## **Industrial structure change**

In the years since the end of the Second World War, Japan's industrial structure has changed a lot. The first sector's share of GDP took a downturn while the second and the third developed.

Figure 1 shows the three sectors' share of GPP in Japan. We can see that the share of the first sector went down from over 20 percent in 1955 to about 2 percent. About the second sector, it increased from about 30 percent in 1955 to over 40 percent in 1970. Then it decreased slightly and stabilized in 35 percent level. On the other hand, the third sector went upward from 40 percent to over 60 percent.

Figure 1: Share in GDP of the three sectors

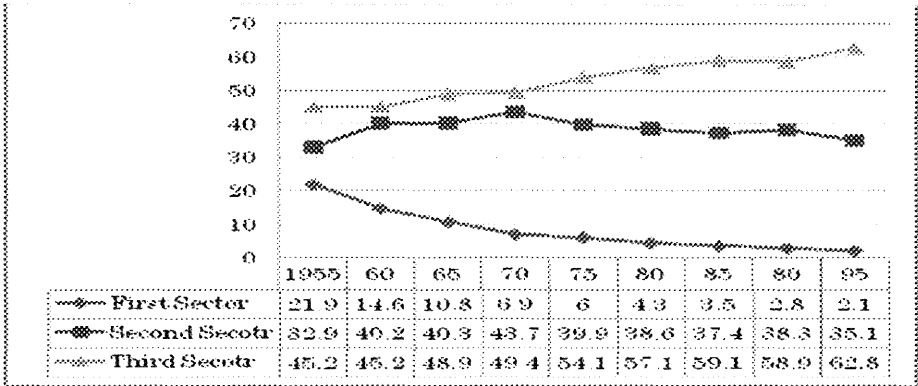
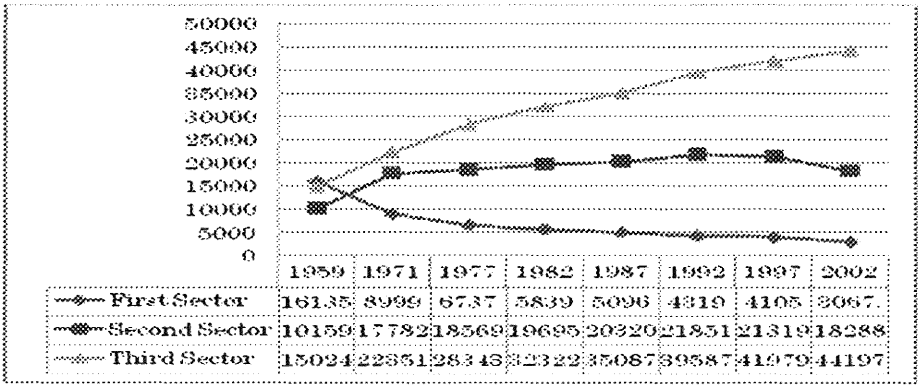


Figure 2: Population working in the three sectors



Source: Annual Report on National Accounts of Japan, every year

With the change of the industrial structure, Japan's employment structure changed too. Figure 2 shows the change in population working in the three sectors. Through this figure, we can see that the population working in the first sector went downward. However, the second sector increased from about 1,000,000 in 1959 to over two times as of 1992 and then went down to about 1,800,000 currently. At the same time, the population working in the third sector increased from 1,500,000 in 1959 to three times, 4,500,000 in 2002.

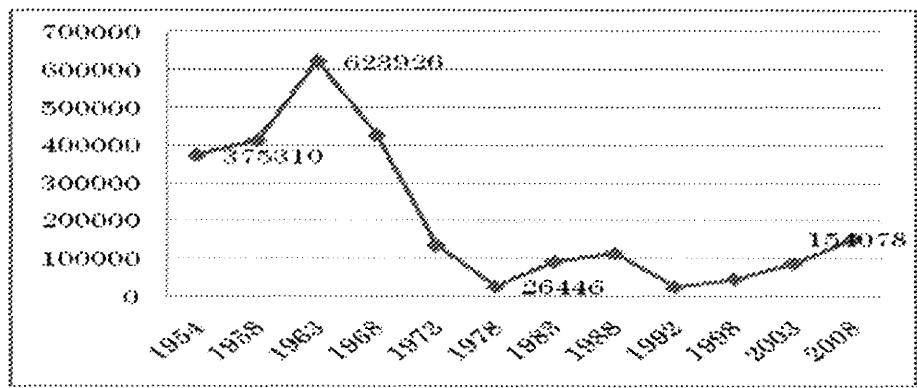
If we compared the Figure 1 and Figure 5, we can see that the change in trends of the three sectors is almost the same. The first sector went down turn, the second sector went upward and then down, the third sector increased rapidly.

Population concentration

Based on mass-production style, the productivity of the industrial sector is dramatically higher than the first sector and its contribution to economic development in Japan. The two main effects of industrialization are income increase and urbanization. The income of People working in cities was increased and more and more people concentrated in big cities.

Figure 3 shows the net-migration to the three most highly populated area of Tokyo, Nagoya and Osaka. The data in the following figure is the result of immigration minus emigration. We can see that after the 1950's, the data is plus even though it curves a lot. Especially in 1963, over 600 thousand people migrated into huge cities.

Figure 3: Net-Migration to Tokyo, Nagoya and Osaka Area



Source: Annual Report on Internal Migration in Japan, 2008

On the other hand, increased income makes citizen's lives diverse. People living in cities want to enjoy life more before they are engaged and the average marriage age tends to be higher and higher.

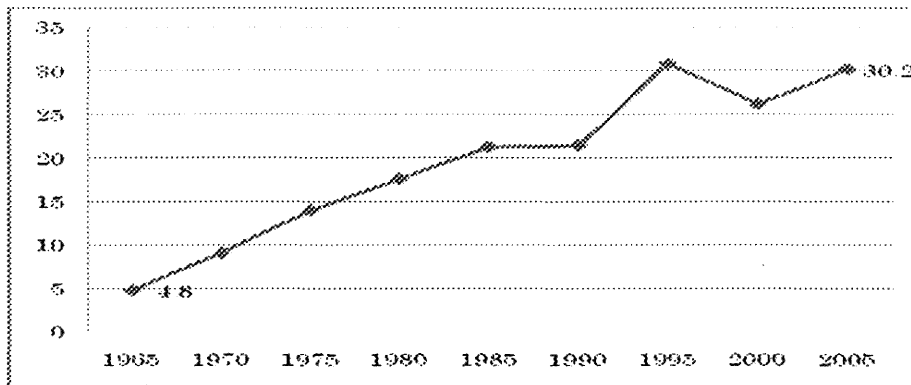
At the same time, in cities, housing condition is poor and the living cost is high. Extra rooms, feeding kids and education fees require citizens to pay a lot of money.

Highly educated society

Even the number of low-income families went up; Japanese families have to pay extra money to send children to college because it has become a highly-educated society. Figure 4 shows the percentage of

under graduate degree holders in new employment. In 1965, just about 5 percent of new employees had graduated from over college. After then, the percentage increased upward and it became 30 percent in 2005.

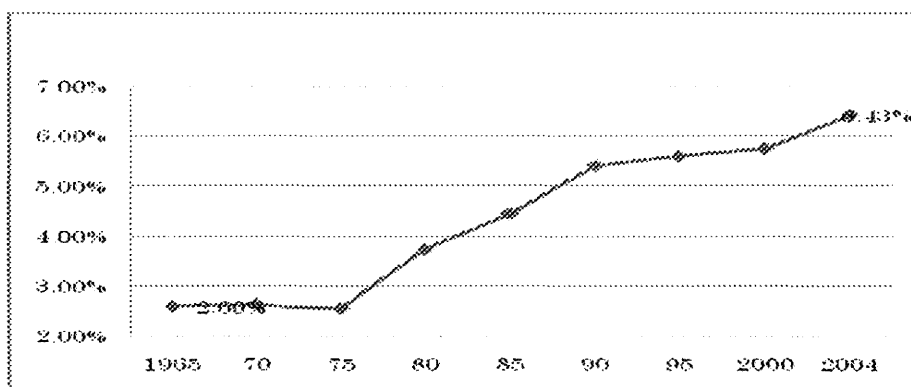
**Figure 4:** Percentage of undergraduate degree in new employee



Source: Labor Statistics of Japan, every year

In the current highly educated society, it is becoming difficult to find a good job for the freshman who just has just finished the senior high school. So the educate burden for the families is becoming heavier than 40 years ago. Figure 5 shows the change of percentage of education in household consumption in Japan from in 1965 to 2004. Through Figure 5, we can find that the educational expenditure in the household is just over 2 percent in 1965 and then it went upward. Currently in 2004, the percentage became 2.5 times of that in 1965 to 6 percent. It means that Japanese families have to pay more money to send their children to college.

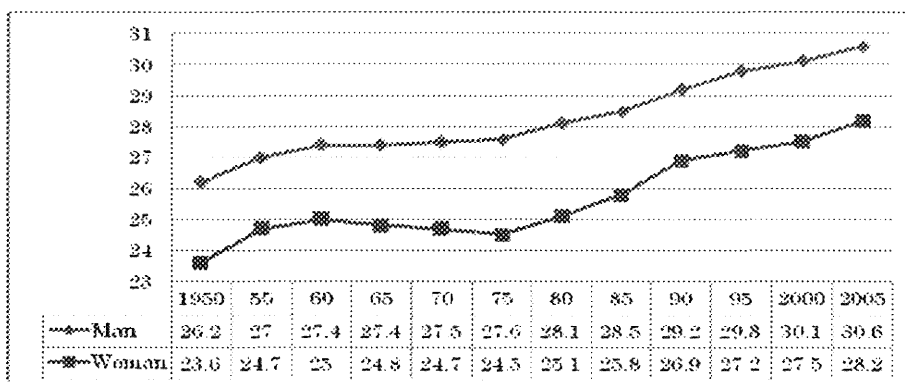
**Figure 5:** Percentage of education in household consumption in Japan



Source: Annual Report on National Accounts of Japan, every year

Another implication of a highly educated society is that marital age becomes older. If people go to college after they have graduated from senior high school, the marriage age will be expanded 4 years. Actually, after graduation from the university, most people will work for many years and then marry. Figure 6 shows the trends of the first marital age in Japan from 1950 to 2005. In 1950, men marry at about 26 and woman at 23.5. After that, it goes upward and in 2005 it reached to 30.5 and 28.

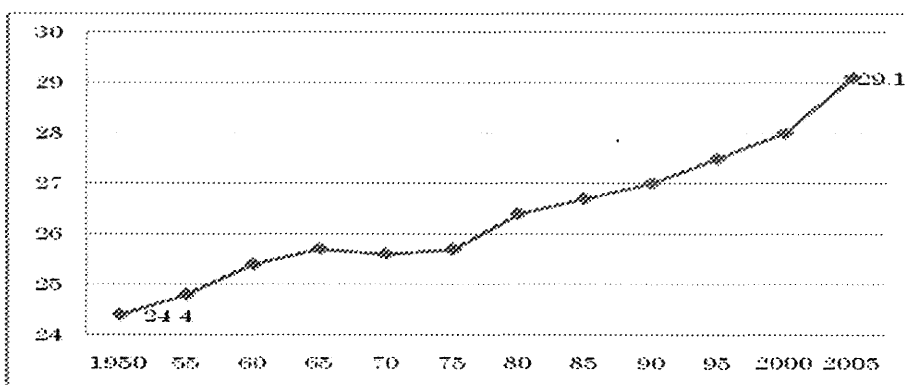
**Figure 6:** Trend of the first marital age in Japan



Source: Vital Statistics of Japan, every year

Furthermore, with the Industrial change in Japan from labor-intensive to technological-intensive and the development of the third sector, it is possible for women to participate in the economical society. They get the salary and have no need to get economical support based on marriage. Some women choose to single life, even though they marry, the marital age is usually late.

**Figure 7:** Mean age of mother giving the first birth



Source: Vital Statistics of Japan, every year

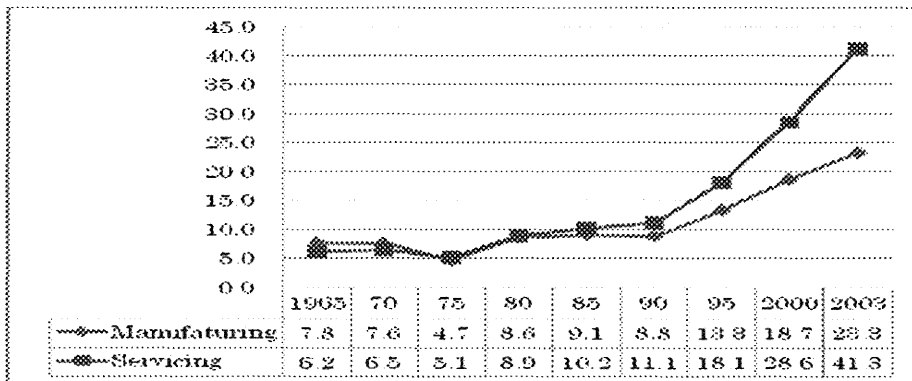
Therefore, the birth age is becoming old too. Figure 7 shows the mean age of mothers giving the first birth. We can find that the age was 24.4 in 1950. After then, the age became older and in 2005, the age increased to 29.1. Late marriage and late birth contributed to the childlessness.

## Non-fulltime employment expand the income gap

It seemed that the second and the third sector absorbed the increased population. However, more and more people worked non-fulltime. Figure 6 shows the percentage of non-fulltime employment in Manufacturing and servicing field.

We can see that both are about 5 percent in 1965 and continued for ten years to 1975. After the oil-shock, as one of the solution to shut down cost for manufacturing Japanese companies, non-fulltime workers have been adopted into factories. The percentage of non-fulltime workers in manufacturing sector in 1980 increased to two times of in 1975, and this percentage continued ten years. As a result of Plaza Accord, the Japanese currency went upward, Japanese manufacturing companies lost the competitive advantage and they had to adopt local-produce policy and transferred the labor-intensive factories to the developing countries.

Figure 8: Percentage of non-fulltime employment in Japan



Source: Labor Statistics of Japan, every year

However, after the late 1990s, developing countries' manufacturing developed rapidly and Japanese companies have been losing the competitive advantage just because the manufacturing factories in developing countries have the low-cost weapon. As one of the regaining competitive advantage policy, Japanese companies had to lower the fulltime employment because the salary of non-fulltime workers is about 30 percent lower than that of full-time workers. Figure 8 shows that the percentage of

non-fulltime employment increased from about 10 percent in 1990 to about 25 percent currently.

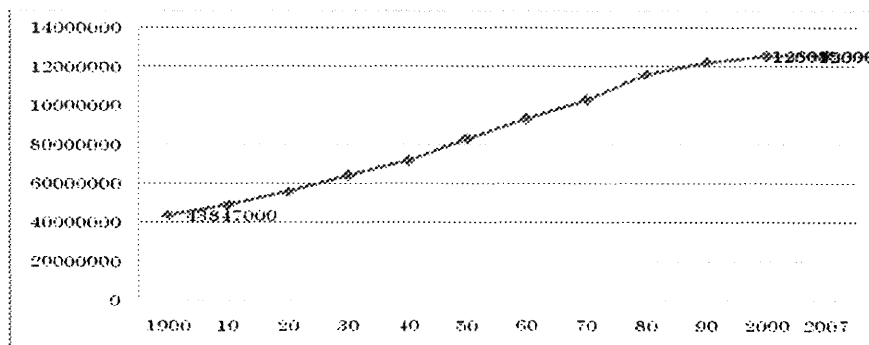
During the same period, the servicing sector had the same trend as that of manufacturing. As Figure 1 showed, after the end of Rapidly Developed Period in 1975, the third sector developed rapidly in Japan. The non-fulltime employment increased a lot, too. Because employment in the third sector is more flexible than the others, short-time, part-time and other types of working conditions happened. As the result, the percentage of non-fulltime job in servicing field increased to over 40 percent currently. The non-fulltime worker get about 30 percent lower income than full time worker. The income gap expanded.

## Long-term view of Japan's childlessness

Until now, we have analyzed the reason of childlessness in Japan taking the industrial structural change approach. However, as we research some problems, it is not suitable just in short term view. That is because most problems don't appear suddenly, especially the population issue. It is accumulated for a very long term, and we should prospect the future and the influence not basing ten yearly but centennial view.

Over a century ago, just after the Meiji revolution in 1900, Japanese population was about 40 millions. After then, Japan started to industrialize its economy and imported a lot of advanced western technology. The government funded a number of modern factories and adopted Mass-production style. Japanese industrial economy expanded rapidly. After the First World War, Japan gained a large-scale world market and emerged as a major industrial nation.

**Figure 9:** The trends of population change in Japan



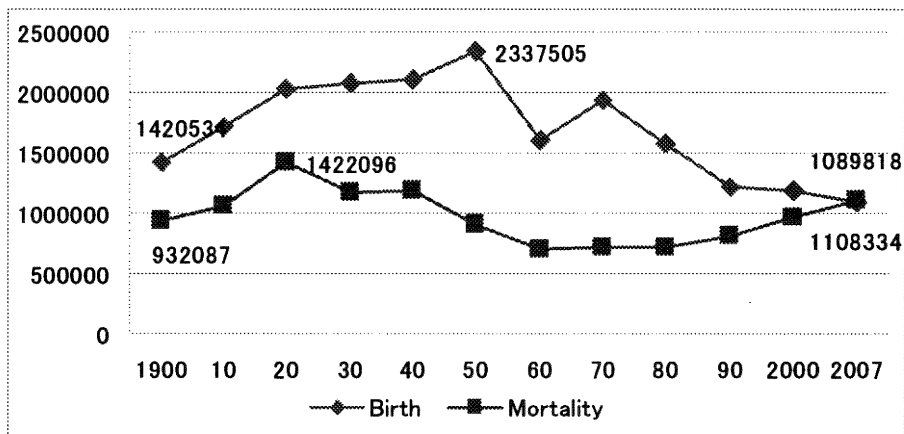
Source: Vital Statistics of Japan, every year



Mass-production increased the citizen's standard of living and made it possible to feed a huge scale of population. Japanese population increased continually. Finally in 1970's, it reached to 12 million, three times of in 1900. Figure 9 shows the population increasing in Japan.

Population increase means that the birth rate is more than the population mortality. In Japan, the birth rate has been increasing from 1900. In the same trend, the population mortality increased in the same period, as well. However, the birth rate was more than the mortality.

**Figure 10: Birth and mortality population in Japan**



Source: Vital Statistics of Japan, every year

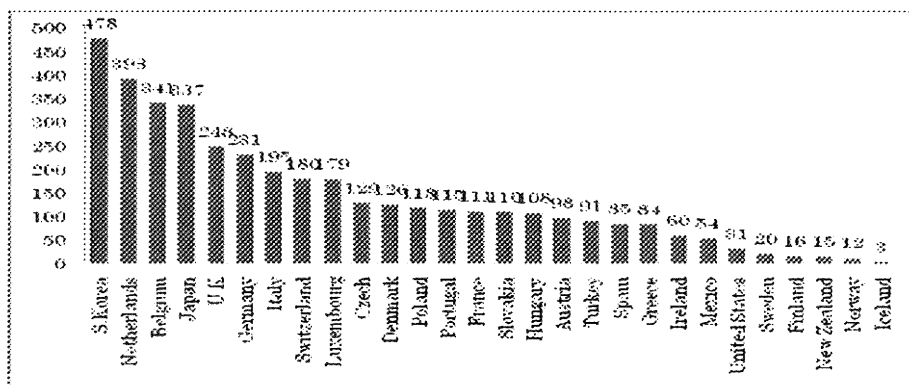
Figure 10 shows the trends of birth and mortality population in Japan. Through the figure, we can see that from 1970's, the birth rate decreased continually and the mortality increased at the same time. Finally in 2007, the mortality rate surpassed birth rate and the population is shrinking.

## Continually increasing population isn't sustainable

Is it possible for a country to increase the population? Certainly the answer is negative. First of all, it has to have the enough territory to support human habitation. If the population in a country increases, the density will become high. It means that in one unit of the same surface, there are more inhabitants living. The neighborhood may be destroyed and transportation condition may become worse. In other words, the living standard may be decreased.

The population density in Japan is one of the highest in the whole world. Figure 11 is a list of OECD countries by population density. Through this figure, we can see that the population density in Japan is about 350 and the third highest after South Korea, Netherlands and Belgium.

**Figure 11:** Densities of OECD countries



Source: Population, Resources, Environment and Development, U.N. (2006)

Note that this figures are simply estimates of population divided by total surface and not considered it is suitable for living or not. Actually, 67% of the Japanese territory is mountain area and only 13% is flat area. Furthermore, over 90% of the population is living in about half of the territory land. So we can say that the population density is the highest in the world. In this sense, depopulation may be a good thing for the Japanese.

## Reform the social security system

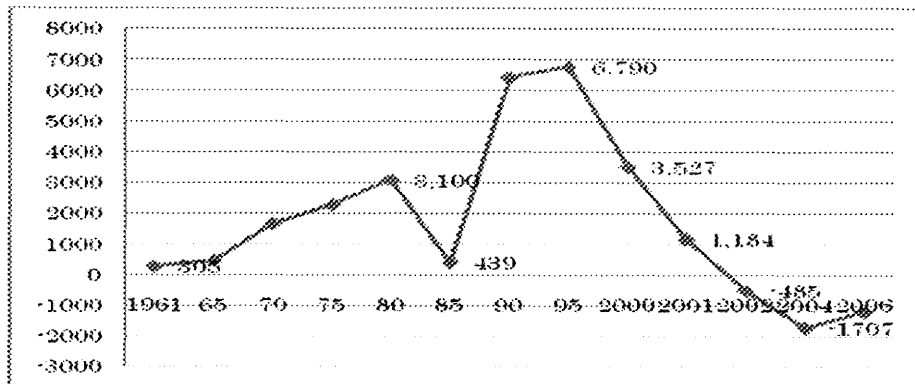
However, both government and media consider the childlessness as a serious problem. They say the country will be confronted with a lot of problems caused by the childlessness. One of the main problems is that the social security system would collapse.

Social security system is designed to maintain the citizens' income after they become aged. In most of the countries in the world, the so-called pay-as-you-go system is adopted. In Japan, the same social security is adopted, too. Under this system, young people pay money to the government when they are in working age, and get the pension from the government after they have retired.

Actually, the government pays the working generation's money to the elderly generation. After the current working generation gets old, the retirement pension would be from the next working generation.

This is because the government expects that the population will increase forever. Certainly, so far currently, it was never problematic because the population has been increasing until now.

**Figure 12:** Pension balance of Japan



Source: Report on Pension Fund Management, MHLW

However, once the population decreases, the current system cannot be continued. This is the real reason why the government is suffering from the trouble of childlessness.

Figure 12 is the balance of pension in Japan. We can see that from 1961, pension income was more than expenditure. The balance went upward and peaked at 1995. After then, it went down and became minus from 2002. The current social security system was designed assuming continual population increase and it is not suitable for the new condition.

In EU countries, the governments are facing the same problem. In Italy, spending on the pay-as-you-go system as a share of gross domestic product is expected to peak at 15.8 per cent in 2032 (see chart). In Germany, forecasts indicate a similar peak, although these projections do not take into account that this year and next pensions will be increased, not in line with average net earnings, but only by the rate of inflation. In France, where the population decline will be less pronounced, state-funded pensions are expected to rise to 16 per cent of GDP in 2040 (Lionel Jospin, 2000).

How can these governments combat this looming crisis? Many governments' first response has been to look for new sources of financing. One approach is to widen the younger generation and allow greater immigration. Young immigrants expand the workforce, and incoming workers with high skills raise productivity. Another possible remedy is general taxation. But the trouble here is that tax financing

weakens the links between contributions and benefits in the pension system. In short, there are no easy answers. Pension reform is thus linked to reform of the welfare system as a whole.

## Conclusion

In this paper, we analyzed childlessness in Japan with industrial structural change approach. Through the analysis, we clarified that childlessness is the result of industrial structure change.

The Japanese economy changed from labor-intensive to technology-intensive. With the change of industrial structure, the population concentrated in the huge cities. Highly-educated workers are more and more needed. On other hand, sending children to accept high education becomes a heavy burden for the Japanese families. Many couples chose not to give birth to babies. Going to college postpones the marital age.

Another change is that the third sector developed. The third sector makes it possible for more women to participate in the society. Because of getting the economic independence, many women chose not to marry but enjoy single life. Meanwhile, the non-fulltime employment increased. It expanded the income gap and makes it more difficult for the low-income people to marry.

However, in long term, Japan's population has been increasing from 1900. Compared with European countries, 130 million is very huge and Japan's population density is one of the highest in the world. High population density decreases the living level of citizen. Continually increasing the population is not sustainable.

The real problem with childlessness is in social security. Until now, Japan has adopted a pay as you go system. It is becoming not suitable for the current society. Reform the social security system is necessary. In short, there are no easy answers. Pension reform is thus linked to reform of the welfare system as a whole and we should continue to explore reform in the area of security.

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