THE CONDITIONS AND POLICY REFORMS FOR FINANCING SOCIAL SECURITY WITH THE DECLINING BIRTHRATE AND AGING POPULATION IN JAPAN

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Source: OECD Family Database  May 2015
TRENDS OF TOTAL FERTILITY RATE IN ASIAN NATIONS AND REGIONS

TRENDS IN LIFE EXPECTANCY AT BIRTH OF TAIWAN AND JAPAN

**JAPAN**


**TAIWAN**

DECLINING BIRTHRATE AND ADVANCEMENT OF AGING → POPULATION DECREASE (ACTUAL AND PROJECTED POPULATION IN TAIWAN AND JAPAN)

JAPAN


TAIWAN

TRENDS IN THE PROPORTION OF THE ELDERLY

JAPAN


TAIWAN

SOCIAL SECURITY BENEFIT, FY 1970-2013


Benefit of LTC included after the year of 2001
TRENDS OF SOCIAL EXPENDITURE BY POLICY AREA IN JAPAN

# Increase in the Number of Aged 75 and Over and Medical Care and Long-Term Care Benefits Per Capita (Estimation Made by MHLW)

<table>
<thead>
<tr>
<th></th>
<th>Number and ratio to total population</th>
<th>Medical care (2011)</th>
<th>Long-term care (2012)</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>2012</td>
<td>2025</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- 13.0 million people</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Aged 64 and under:</td>
<td></td>
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<tr>
<td></td>
<td>96.7 million</td>
<td>84.1 million</td>
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</tr>
<tr>
<td></td>
<td>(Aged 64 and under:</td>
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<tr>
<td></td>
<td>96.7 million</td>
<td>84.1 million</td>
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<tr>
<td></td>
<td>(96.7 million</td>
<td>84.1 million</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(12.2%)</td>
<td>(12.3%)</td>
<td></td>
</tr>
<tr>
<td>Aged 65~74</td>
<td>- 1.0 million people</td>
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<tr>
<td></td>
<td>15.6 million</td>
<td>14.8 million</td>
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<tr>
<td></td>
<td>(12.2%)</td>
<td>(12.3%)</td>
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<tr>
<td>Aged 75 and over</td>
<td>+ 7.0 million people</td>
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<tr>
<td></td>
<td>15.2 million</td>
<td>21.8 million</td>
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<tr>
<td></td>
<td>(11.9%)</td>
<td>(18.1%)</td>
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</table>

**Medical care benefits per capita**
- Aged 64 and under: ¥175 thousand
- Certification rate: 27 thousand

**Long-term care benefits per capita**
- Certification rate: 14 thousand

**Public aid per capita**
- Aged 64 and under: ¥553 thousand
- Aged 65~74: ¥50 thousand (4.4%)
- Aged 75 and over: ¥451 thousand (31.3%)
- Aged 75 and over: ¥131 thousand

Source: Fiscal Policy in Japan - Issue and Future Directions - , July 2015, Ministry of Finance, Japan
PROSPECTS OF SOCIAL SECURITY BENEFITS IN JAPAN (2012 MARCH ESTIMATION PROVIDED BY MHLW)

Source: Fiscal Policy in Japan - Issue and Future Directions - , July 2015, Ministry of Finance, Japan
PENSION SYSTEM IN JAPAN

Source: Social Security in Japan 2014, National Institute of Population and Social Security Research, Ch.3, Pension
CONTROL OF AN INCREASE IN PENSION BENEFITS ACCORDING TO AGING IN JAPAN
INTRODUCTION OF MACRO-ECONOMIC SLIDE FORMULA IN 2004 PENSION REFORM

New System of Adjusting the Amount of Pension (Macro-Economic Slide Formula)

People who newly start receiving pension (new decision recipients): wage growth - slide adjustment rate*  
People who are currently receiving pension (previous decision recipients): price growth - slide adjustment rate*

* Slide adjustment rate:  
Increase rate of the total number of people covered by public pensions + fixed rate with consideration of  
growth rate of average life expectancy (total of approx. 0.8%)  
* Annual average from FY2012 to FY2038

Wage (price) growth

Revision rate of the amount of pension

Slide adjustment rate

- Start the adjustment of the amount of benefits in the case where it is anticipated, in the actuarial verification that is held at least once every five years, that keeping the financial equilibrium of pension is difficult throughout the financial equilibrium period, even though keeping necessary amount of pension reserve (approximately one year of the amount of benefit) so as not to be detrimental to pension payment at the end of the approximately 100 years of the financial equilibrium period.
- The amount of pension usually increase in response to wage and price increase. However during adjustment period of pension benefit, the revision of pension benefit will be reflected in the decrease of the force that bears pension system and growth of average life expectancy so that the increase of the amount of pension shall be suppressed to be lower than the increase of wage and prices. (This system is called "Macro-Economic Slide Formula")
- In subsequent actuarial verification, at a time when the financial equilibrium of pension is anticipated to be sustainable, those adjustment of the amount of benefits shall be concluded.

OUTLINE OF THE HEALTHCARE INSURANCE SYSTEM (2009)

CONTROLLING INCREASE IN MEDICAL EXPENDITURES AND STABILIZING REVENUE OF HEALTH CARE SYSTEM FOR THE ELDERLY PEOPLE

In anticipation of increasing medical expenditure with aging of society, from the viewpoint to clarify the burden between aged and young generations, the medical insurance system for the elderly aged 75 and over was enacted in April 2008.


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**Structure of Medical Care System for the Elderly aged 75 and Over**

- **Number of eligible people**
  - Elderly aged 75 and over: approximately 15 million people

- **Medical expenditure for the elderly aged 75 and over**
  - 13.4 trillion yen (FY2011 budget basis)
    - Benefit payment: 12.3 trillion yen
    - Copayment: 1.1 trillion yen

- **Amount of insurance premiums (FY2011)**
  - Nationwide average: approximately 63,300 yen/year
    - For those who receive only the basic pension: approximately 4,200 yen/year

- **Premium of the elderly**
  - 0.9 trillion yen
    - Approximately 10%
    - [Actually approximately 7% with reduction measure]

- **Supportive contribution to medical insurance for elderly aged 75 and over**
  - Insurance premium of young people
    - 5.3 trillion yen
    - Approximately 40%

- **Public expenditure (approximately 50%)**
  - 5.8 trillion yen
    - [Nation: Prefecture: Municipality = 3.9 trillion yen : 1.0 trillion yen : 1.0 trillion yen = 4 : 1 : 1]

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**Source:** Overview of Medical Service Regime in Japan, Ministry of Health, Labour and Welfare, Japan, www.mhlw.go.jp/bunya/iryohonken/iryohonken01/dl/01_eng.pdf
TRENDS OF MEDICAL EXPENDITURES IN JAPAN: CONTROL OF AN INCREASE IN MEDICAL EXPENDITURES FOR THE ELDERLY PEOPLE

CONSUMPTION TAX REVENUES FOR SOCIAL SECURITY (FY2015 BUDGET)

Source: Fiscal Policy in Japan - Issue and Future Directions - , July 2015, Ministry of Finance, Japan
OVERVIEW OF CONSUMPTION TAX OF JAPAN

The following domestic and import transactions, except for certain transactions deemed non-taxable, are subject to consumption tax. The consumption tax rate is 8% (inclusive of local consumption tax rate of 1.7%).

Although the consumption tax rate is scheduled to increase to 10% (inclusive of local consumption tax rate of 2.2%) from April 1, 2017, a reduced consumption tax rate will also be introduced at the same time.

The reduced tax rate of 8% (inclusive of local consumption tax rate of 1.76%) will be applied to food and beverages, except for alcoholic drinks and dining out, and newspapers published more than twice a week (based on a subscription contract).

Financial transactions, capital transactions and certain transactions in the areas of medical care, welfare and education are deemed non-taxable.

On June 1, 2016, Prime Minister Shinzo Abe announced that the rise in the consumption tax to 10% and the introduction of the reduced tax rate would be postponed until October 2019.

Source: JETRO Laws and Regulations on Setting up Business in Japan, Section 3. Taxes in Japan
TRENDS IN EXPENDITURES & REVENUES, AND THE GOVERNMENT BOND ISSUES IN JAPAN

Source: Fiscal Policy in Japan - Issue and Future Directions -, July2015, Ministry of Finance, Japan
INTERNATIONAL COMPARISON OF FISCAL BALANCE AND GROSS DEBT

Source: Fiscal Policy in Japan - Issue and Future Directions - , July 2015, Ministry of Finance, Japan
(Summary) Toward a society participated by all citizens, whether they are women or men, the elderly or youths, people who have experienced a failure, people with disabilities and people fighting an illness, can play active roles in their respective homes, workplaces and local communities or any other places.

The Doctrine of a Mechanism of a Virtuous Cycle of Growth and Distribution

On the second stage of Abenomics, we will tackle the issue of the declining birthrate and aging population, which is at the root of the obstacles in economic growth, head on. In order to try to build a new system of our economic society where we enhance childcare supports and social security as a broader economic policy, which will lead to a more robust economy.

We will realize a society where diversity is accepted and all citizens are included, which will lead to more certain prospects for the future, a boost in consumption and the expansion of investment. We will encourage all citizens to fully show their own various talents, which will lead to improvement in the labor participation rate and creation of innovation, in order to further accelerate the economic growth.

We cannot continue "distribution" without the fruits of "growth". We will enhance the foundation of childcare and social security, utilizing achievements of Abenomics. People can be engaged in growth when they are provided supports for childcare and nursing care.

A set of the new three arrows combined altogether itself can be called as the ultimate growth strategy.
(1) WORKING STYLE REFORMS

Improvement in working conditions of non-regular workers (account for approximately 40% of the whole workers in Japan) including realization of “equal pay for equal work” should be conducted urgently. Through formulation of guidelines, we will indicate what kind of treatment gaps are unreasonable and should be corrected and in order to let them smoothly be corrected, we will submit the related bills.

- Practices of long working hours make it difficult to balance work and family life including childcare, which leads to the declining birthrate and prevention of career formation of women. We will enhance enforcement of legal regulations and as for the Labor Standards Act, we will once again consider the state of regulations contained in Article 36.

- As for promotion of employment of the elderly, it is necessary to prepare the environment for raising the retirement age and extending employment beyond the age of retirement. We will provide supports for businesses raising the retirement age to 65 and extending employment beyond the age of 65 while encouraging other businesses to do so.
(2) IMPROVEMENT IN THE ENVIRONMENT FOR CHILDCARE

• We raised the target for additional childcare arrangements from 400,000 children to 500,000 children, which is to be accomplished by the end of FY2017.

• As for working conditions of childcare providers, we will newly implement a pay rise equivalent to 2% (about 6,000 yen per month). We will additionally improve working conditions for childcare providers with skills and experiences in order to eliminate a wage gap between childcare providers and female workers across all industries, which is currently around 40,000 yen, making budgetary steps be reflected in actual wages appropriately in execution processes. We will also reduce a wage gap between male workers and female workers across industries as a whole, promoting efforts based on the Act of Promotion of Women's Participation and Advancement in the Workplace and toward "equal pay for equal work". We will further improve working conditions of childcare providers as needed.

• In order to ensure and develop various childcare providers, we will make comprehensive efforts including enhancement of a scheme of a forgivable loan and improvement in productivity by utilizing ICT.

• We will prepare additional arrangements of “After-school Kids’ Clubs” for 300,000 children by the end of FY2019. While promoting improvement in working conditions of childcare providers and reduction in labor burdens shouldered by them, we will discuss the way to bring forward preparation of additional arrangements and complete it by the end of FY2018. As for improvement in working conditions, we will make sure that related budget actions will be appropriately reflected to wages in budget - implementing processes.
(3) IMPROVEMENT IN THE ENVIRONMENT FOR NURSING CARE

• We will accelerate preparation of additional nursing care arrangements for more than 380,000 people (expected increase in arrangements in FY2015 - FY2020). Furthermore, we raised this target to for more than 500,000 people, which is to be accomplished by early 2020s.

• As for working conditions of nursing care providers, in order to eliminate a wage gap between nursing care providers and workers in other competing industries, we will build a career development scheme from FY2017 and improve their wages by 10,000 yen per month on average.

• In order to ensure and develop various nursing care providers, we will make comprehensive efforts including enhancement of a scheme of a forgivable loan, utilization of senior human resources and improvement in productivity by utilizing nursing care robots and ICT related technologies.
AN EMPIRICAL STUDY OF THE EFFECT OF INTEGRATED COMMUNITY BASED CARE SYSTEM OF LTCI ON MEDICAL EXPENDITURE OF THE ELDERLY HOUSEHOLD

After the introduction of Long-term care insurance, the need and demand for long-term care services provided by LTCI increased more than the expectation. With such circumstances, the long-term care insurance was reviewed and several reforms were put in place.

The long-term care insurance system initially aimed to support the independent living of the elderly, and even if the elderly entered a state that required long-term care, it aimed to develop an environment where the elderly could receive treatment in the community with which they were familiar.

To this end, the 2005 revision in the law established community-based care services and Integrated Community Care Support Centers to ensure enhanced services and coordination at the municipality level.

It is expected that the Integrated community based care system decreases the medical expense of the household where the needing care senior citizen exists (amount of expense of the medical treatment a month) by strengthening the cooperation between the medical treatment and long-term care services.

We shall make an empirical study of the effect of Integrated community based care system of LTCI on medical expenditure of the elderly household.
We shall make a regression analysis by making use of the estimation of the difference in difference method (DID) of OLS estimation. In this estimation, we shall treat the home where there exists senior citizen receiving the certification for long-term care with a treatment group, and treat the home where there does not exist senior citizen receiving the certification for long-term care with a comparison group.

The data that we use is the National Survey of Family Income and Expenditure (Statistics Bureau, Ministry of Internal Affairs and Communication) (2004, 2009, 2014) classified by 47 prefectures and by the household structures: the home where there exists senior citizen receiving the certification for long-term care and the home where there does not exist senior citizen receiving the certification for long-term.

The number of samples used for this regression analysis is 282 (=47x3x2).

The estimation method used for the regression analysis is the difference in difference method (DID) of OLS estimation.

The description of this section (the estimation method, the data and the estimation result) is based on the presentation for the Japanese Economic Association 2016 Autumn Meeting.
**SPECIFICATION OF ESTIMATED EQUATION**

\[ Y_{ijt} = \beta_0 + \beta_1 \times \text{needed_ltc} + \beta_2 \times d\_icbcare + \beta_3 \times \text{needed_ltc} \times d\_icbcare + \gamma X + c_{jt} + u_{ijt} \]

The explained variable is medical treatment expense of one month per the elderly household.

Affixing character l indicates prefectures (i=1 to 47), j =1 indicates a treatment group and j=0 indicates a comparison group, d indicates a dummy variable that takes one after the introduction of integrated community based care system (that is after the period over 2006). \( \beta \)'s and \( \gamma \) indicate coefficients and a vector of coefficient to be estimated respectively.

Explanatory variables that included in a vector \( X \): n\_household: number of household members, hh\_age: age of household head, poprate75: the proportion of the elderly people aged 75 and over, drate\_cancer: drate\_diab\_s: drate\_cere\_r: wage\_f5564: wage rate of women, employment\_c: the dummy variable that shows the period after the enforcement of extended employment of the aged between 60 and 64 years of age,, metropolit\_a: the dummy variable for the exisitance of large population city in the prefecture, unemprate: unemployment rate of the prefecture, h\_savings: amount of household savings

\( c_{jt} \) and \( u_{ijt} \) indicate the error term classified by group and the error term of individual respectively.

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<tr>
<th>Year</th>
<th>n_work~g</th>
<th>n_hous~d</th>
<th>hh_age</th>
<th>h_income</th>
<th>h_savi~s</th>
<th>n_work~g</th>
<th>n_hous~d</th>
<th>hh_age</th>
<th>h_income</th>
<th>h_savi~s</th>
<th>n_work~g</th>
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<th>hh_age</th>
<th>h_income</th>
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<tr>
<td>2004</td>
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<td>3.465957</td>
<td>56.87766</td>
<td>1639.66</td>
<td>719.879</td>
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<td>2009</td>
<td>1.442553</td>
<td>3.205319</td>
<td>59.09149</td>
<td>1587.51</td>
<td>775.126</td>
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### Source: the authors tabulation based on the National Survey of Family Income and Expenditure (2004, 2009, 2014)
ESTIMATION RESULT OF THE EFFECT OF INTEGRATED COMMUNITY BASED CARE SYSTEM ON MEDICAL EXPENDITURE OF THE ELDERLY HOUSEHOLD
(THE EXPLAINED VARIABLE: MEDICAL TREATMENT EXPENSE OF ONE MONTH PER THE ELDERLY HOUSEHOLD)

The dummy variable in which the home where the needing care senior citizen exists is positive, but the coefficient of the intersection of the integrated community based care system is negative and statistically significant.

This implies that Integrated community cased care system exerted the influence that decreased the medical expense a month of the home where the senior citizen receives certification of LTC service with coordination of medical care and LTC enabled to be done more efficiently compared with before the system's being introduced.

<table>
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