

Tax Improvements for Solving Japan's Ageing Population Issues

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Introduction

Japan's ageing population issues can be divided into six causes and effects as follows,

(a)Substandard fertility treatment aid, (b)Unsatisfactory maternity leave benefits, (c)Marriage delayal, (d)Insufficient medical care aid, (e)Inadequate pension system, (f)Over-expensive education costs.

As countermeasures, six policies and the subsequent tax improvements are proposed. In addition, the concept of "Burden of Citizen" (BoC) is introduced to determine the probability of such changes happening.

Six Policies

Raising maternity leave benefits

Extra cost: ¥ 488.7 billion

Introducing medical care aid for "super" senior citizens Extra cost:¥ 981.4 billion

Increased child benefits per child

Extra cost:¥ 187.8 billion

Introducing regular employment benefit

Extra cost:¥ 60.8 billion

Increasing the attainability of fertility treatment aid

Extra cost:¥ 3.0 billion

Improving the pension plan

Extra cost:¥ 91.0 billion

Tax Improvements

1)Lower income taxes by 80% for people earning less than ¥8million(year)

<\\$million: \\$ 8.61trillion >¥8million: ¥ 8.99trillion **Revenue: ¥ 17.60trillion**

×0.80 ×1.00

¥ 6.89trillion ¥ 8.99trillion ¥ 15.88trillion (-1.72 trillion) 2) Raise consumption taxes to 15% & Reduced consumption tax rates of 3% for food and medicine

Food & Med.: ¥ 4.15trillion Others: ¥ 13.05trillion **Revenue: ¥ 17.20trillion**

 $\times 0.375$ ×1.875

¥ 1.55trillion ¥ 24.46trillion ¥ 26.01trillion (+8.81trillion)

Burden of Citizens

Burden of Citizens(BoC):

The proportion of tax outgo in one's annual income.

Calculating BoC

- 1. Subtract tax deductions from annual income
- 2. Calculate income taxes, residence taxes and social security fees based on 1.
- 3. Subtract 2. from 1. to determine the take-home pay
- 4. Calculate consumption taxes based on 3.
- 5. Calculate BoC based on figures above

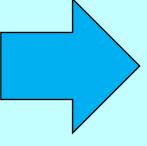
XDetermine food expenses based on Engel's coefficient

XHypothesizing that the expense rate will change from 80% to 70% based on the tax revision in 2014 (5 \rightarrow 8%)

Results and Comparison

1)Income: ¥2.5million(year) (Tax deductions: <¥97.5thousand)

Tax outgo: ¥ 840,250 Food & Med.: ¥ 28,680 Others:¥ 77,544



Tax outgo: ¥ 792,200 Food & Med.: ¥ 10,181 Others:¥ 137,635

BoC: 37.60%

BoC: 37.86%

2)Income: ¥4.6million(year) (Tax deductions: <¥427.5thousand)

Tax outgo: ¥ 1,938,500 Food & Med.: ¥ 40,881 Others:¥ 129,455

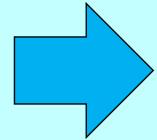
Tax outgo: ¥ 17,716,000 Food & Med.: ¥ 14,988 Others:¥ 237,314

BoC: 45.84%

BoC: 44.00%

3)Income: ¥20.0million(year) (Tax deductions: <¥2.796million)

Tax outgo: ¥ 11,681,600 Food & Med.: ¥ 111,799 Others:¥ 420,578



Tax outgo: ¥ 11,681,600 Food & Med.: ¥ 38,571 Others:¥ 725,498

BoC: 62.23% BoC: 61.07%

Conclusion

From the results above, the proposed tax improvements will raise tax income by ¥7.09trillion which is more than enough to cover for the proposed six policies that cost ¥1.81trillion. Also, from the BoC results, it is evident these policies can solve Japan's ageing population issues with a negligible effect on citizens financially, thus saving Japan from the crisis it is facing. Furthermore, these methods, especially regarding the concept of "Burden of Citizens" (BoC) may prove to be extremely useful worldwide as a means for a country to determine beforehand the effects and probability of new taxes.

https://www.e-stat.go.jp/stat-search/files?page=1&layout=datalist&toukei=00200561&tstat=000000330001&cclass1=0000003300004&tclass3=000000330006&stat_infid=000031586340 (総務省、家計調査(家計収支編)、年収別1世帯