Regarding future estimates of food consumption in Japan
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– Continuing decreases in total food expenditure and externalization of our diet –

YAGI Kohei

1. Introduction

In recent years, the increase in single-person households, continued women's social advancement, and other factors has led to further externalization of our diet through an increase in the frequency of use of processed foods and eating-out. This trend towards externalization of our diet may be the result of the environments in which we are raised, but is seen more often in younger generations, while it has been pointed out there is a trend towards preferring home-cooked food in older generations. So, if the declining birthrate and aging population continues to advance in the future, how will it affect the breakdown of food expenditure? In this paper I will present the latest future estimates of food consumption which include the effects of these trends.

The detailed procedures used for making these estimates are as follows.

1. The food expenditure of heads of household by item per individual per age bracket from the Ministry of Internal Affairs and Communications "Family Income and Expenditure Survey" and the Ministry of Internal Affairs and Communications "National Survey of Family Income and Expenditure" are estimated using a model where estimates are explained as "cohort effect" based on differences in year of birth, the "period effect" of changes in different time periods, the "aging effect" which occurs as individuals age, "consumption expenditure", and "price".

2. Future values are applied to this model to calculate the food expenditure amounts by item per individual head of household per age bracket.

3. Lastly, the future food expenditure amounts are estimated by multiplying the calculated expenditure amounts by the future number of members of household and number of households per each head of household age bracket as calculated from the National Institute of Population and Social Security Research "Future Estimates of the Number of Japanese Households".

2. Decreases in future food expenditure amounts

The trends for the nationwide Japanese food expenditure amounts and the food expenditure amounts per individual are shown in Figure 1. Compared to the ratios for 2015, the population in 2040 will have declined by 15%, so the nationwide food expenditure amount will decline by 2%. Meanwhile the food expenditure amount per individual is expected to grow significantly, increasing by 16%.

So why will the food expenditure amount per individual grow this much? One major cited factor is the increase in the amounts of expenditure on eating-out and processed foods. Looking at the breakdown of food expenditure amounts per individual, it is predicted that by 2040 the ratio of fresh food will decrease by 11% from the 2015 ratios while the ratio of processed food will increase 32% and the ratio of eating-out by 13%. This means that the increasing externalization of our diet is greatly contributing to the increase of food expenditure per individual.

3. Growth in the share of processed foods

Trends for expenditure ratios of fresh food, processed food, and eating-out by type of household are shown in Figure 2. In single-person households, while the ratio of both fresh food and eating-out greatly decline, the expenditure ratio of processed food grows significantly from 50.2% in 2015 to 63.9% in 2040. Meanwhile, in households consisting of 2 or more individuals, the ratio of both eating-out and processed foods increases, while the expenditure ratio of fresh food declines greatly from 30.2% in 2015 to 23.8% in 2040. For total households consisting of a combination of these 2 household types the trend is a reduction in eating-out and fresh food expenditure ratios, and a significant increase in processed food expenditure ratios from 52.1% in 2015 to 59.2% in 2040. Looking at the changes in expenditure ratios in this manner highlights a significant increasing trend in expenditure ratios for processed foods.

Cited reasons for this increase in processed foods, even over eating-out, include a tendency for elderly households, which are
expected to increase in number going forward, to avoid eating-eating while preferring processed foods, as well as changes over time such as the growing inclination towards more ease in daily life, etc.

4. Expansion of food expenditure ratios for single-person, elderly households

Lastly, food expenditure ratio trends by head of household age bracket and household types are shown in Figure 3. From this figure one can see that expenditure ratios for heads of household of age 65 and older are increasing from 36.2% in 2015 to 43.0% in 2040. This growth is significant in single-person, elderly households in particular, so it can be inferred that provision of food to these type of elderly households will become more critical going forward.

Figure 3. Food expenditure ratio changes by age bracket and household types

Note (1) Values up until 2015 are actual values calculated from the "Family Income and Expenditure Survey", "National Survey of Family Income and Expenditure", and other sources, while values from 2020 onwards are estimated values.

(2) "Fresh food" is the total of rice, fresh meat, milk, eggs, and other fresh foods.

"Processed food" is a type of food which accounts for foods other than those which fall under the "fresh food" and "eating-out" categories.
5. In closing

It was thus possible through the latest food expenditure future estimates to verify that, for example, the expenditure ratio of processed food per individual will increase significantly, and the food expenditure ratios for elderly households and single-person households will continue to grow. As such, in order to adapt to these changes in food expenditure, going forward it will likely become more important for Japan's agriculture, livestock, and fishery industries to incorporate this demand for processed and commercial-use foods, for which imports have made up the largest share up until now. In addition, development of new products aimed at food expenditure for the increasing number of elderly and single-person households will lead to new business opportunities going forward.

The Policy Research Institute, Ministry of Agriculture, Forestry and Fisheries publishes more detailed estimate results, including future estimates on energy consumed and caloric values, as well as trends in expenditure ratios by item type per head of household age bracket and more.