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Japan's FTA Policy and Support to Agricultural Sectors

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1. Introduction

Traditionally, Japan has assigned the highest priority in its trade policy to multilateral cooperation through the GATT and WTO frameworks, in order to reduce tariffs and other trade barriers. However, the tide of regional economic integration, including various free trade agreements (FTA) throughout the world, was stronger in the 1990s. It has become more difficult for Japan to protect its interests in the field of international trade by means of the WTO system alone.

There has been an obvious change in trade policy in the last few years. Japan's first FTA, with Singapore, which was named the Japan-Singapore Economic Partnership Agreement (JSEPA), came into effect in 2002, while official negotiations with Mexico have reached their final stages. A joint research group that includes government officials, business leaders and academics was established in 2002, to investigate the possibility of establishing a Japan-Korea FTA[1]. We can say that FTAs have now become an essential part of Japan's trade policy.

Japan will have more potential FTA partners in the second stage. Japan has agreed with ASEAN to begin negotiations on an FTA in 2003. China has also made an approach to Japan about the possibility of a trilateral FTA among three of the Northeast Asian countries: Japan, China and the ROK. Issues relating to agricultural products will be a crucial point in these negotiations. The abolition of tariffs and other import barriers to agricultural products are not dealt with in JSEPA, having been left aside as matters to be handled in the new round of WTO talks. However, it is not realistic to expect that potential partners such as ASEAN and China will accept such conditions in an FTA with Japan.

Therefore, to make an FTA with these countries possible and maintain a certain level of income for domestic producers in agricultural sectors, it is necessary to introduce a new support policy that replaces tariffs and other boundary barriers. Direct income subsidies to producers – a so-called "decoupling policy" – are known to be a method that minimizes the distortion of markets. Here, we try to analyze the economic effect of the introduction of direct income subsidies to agricultural sectors in Japan, were FTAs to be concluded between Japan and various East Asian countries. With regard to the method of analysis, we have applied the CGE model maintained by the GTAP database version 5.

2. Outlines of model

We have applied the standard GTAP model for analyzing of the static economic effects of an East

Asian FTA.

66 regions and 57 commodities or sectors are available in the GTAP database version 5. We carried out an original aggregation of regions, as shown in Appendix table 1. There are 10 independent East Asian regions – Japan, the ROK, China, Hong Kong, Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam – and 4 aggregate regions. The sectoral aggregation of our model is shown in Appendix table 2. For the purpose of analysis, we have used smaller subdivisions of the agricultural and food processing sectors.

3. Economic effects of an East Asian FTA

This section deals with the results of simulation 1 (SIM1), illustrating the effects of an East Asian FTA. SIM1 assumes the total abolition of import tariffs among the 10 East Asian regions. The macroeconomic effect in member regions and its sectoral effects in Japan are summarized below.

(1) Macroeconomic effects in member regions

As we can see from Figure 1, 9 all East Asian regions apart from Hong Kong experience a positive change in real GDP. The magnitude of change is largest in Vietnam, which shows a 1.87% gain.

In equivalent variance, which shows a change in welfare, 8 regions except China and Philippines experience a positive result, as shown in Figure 2. Japan gets the greatest benefit, with an increase of $9.88 billion, followed by the ROK with $5.37 billion.

Therefore, this simulation shows that an East Asian FTA would have a positive effect for the majority of potential member regions.

(2) Sectoral effects in Japan

Table 1 shows tariff rates between Japan and member regions. As we can see from the table, tariff rates are set at a high level in the agricultural and food processing sectors, with the highest in the rice sector, at 80.35% for all regions.

Consequently, the abolition of tariffs under an FTA would result in a drastic decrease in the price of imports. As we can see in Figure 3, the greatest decrease is in the price of rice, which experiences a drop of 70.69%. In addition, such agricultural and food processing sectors as fruit and vegetables, meat products, daily products and other food products recorded high decreases. These price decreases obviously caused an increase in imports, as shown in Figure 4. The increase in the rice sector is remarkably high, at 657.56%. The 4 sectors mentioned above also recorded a relatively high increase. In terms of the change in the trade balance, other food products showed the largest deterioration, with rice experiencing the next largest.

The increase in imports in the agricultural and food processing sectors caused a decrease in domestic production. Figure 6 illustrates the change in value added by sector. All agricultural and food processing sectors recorded a decrease, the largest being 19.68% in the rice sector. In addition, the raw milk sector showed a decrease in value added. As there is no import tariff on imports from East Asian

regions in this sector, it cannot have been directly affected by the abolition of the tariff. However, the removal of the tariff in the daily products sector caused a decrease in the demand for domestic raw milk.

The decrease in domestic production in the agricultural and food processing sectors would inevitably cause a decrease in employment in these sectors. Figures 7 and 8 show the change in the employment of skilled and unskilled labor. All sectors recorded a negative change, of less than 20% in the case of the rice sector, for both skilled and unskilled labor.

4. Alternative policy simulations

As outlined above, an East Asian FTA will inevitably have a negative effect on domestic production and employment in Japan's agricultural and food processing sectors, even though it will provide macroeconomic benefits for the majority of East Asian regions, including Japan. It is to be expected that these effects will be the source of political objections to the FTA in Japan. Here, we would like to introduce alternative policy scenarios which would reduce adjustment costs in those sectors[2].

(1) Simulation 2

As we saw above, the rice sector will suffer the greatest damage from tariff removal. The sector also accounts for a major part of Japan's agricultural production. So, in simulation 2 (SIM2) we have maintained Japan's import tariff on rice in order to support domestic production. Here, we have deliberately assumed a change in only one sector, in order to identify the direct effect of the policy change. Other than that, simulation 2 is identical to simulation 1.

Without tariff removal, there is no decrease in the import price of rice or increase in the volume of rice imports, as can be seen in Figures 3 and 4. Therefore, there cannot be much change in domestic production or employment, as shown in Figure 6, 7 and 8. On the other hand, the equivalent variance for Japan decreased from $9,880 million in simulation 1 to $7,347 million, due to the continued high price of imports.

(2) Simulation 3

In simulation 3 we have assumed a production subsidy for the rice sector. The rate of subsidy is 64%, a rate calculated to minimize the reduction of value added. Other than on that point, simulation 3 is identical to simulation 1. In this case, the import price of rice decreases, as shown in Figure 3, but the magnitude of the decrease is smaller than in simulation 1. There is some increase in rice imports, as shown in Figure 4. The value added in the rice sector decreased by 1.70%, the minimum rate that we could achieve through the manipulation of production subsidies. The decrease in employment is much smaller than in simulation 1, as shown in Figures 7 and 8. The equivalent variance of Japan is $8,257

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million, which is lower than in simulation 1 but higher than in simulation 2.

5. Conclusion

Obviously, an East Asian FTA would have positive economic effects for the majority of potential member regions. However, negative effects on the agricultural and food processing sectors can be expected from our simulation. We introduced hypothetical scenarios reducing the domestic political risk resulting from the FTA. In terms of welfare, simulation 3, i.e. the introduction of a production subsidy in the rice sector, has an advantage.

However, as mentioned above, it does not mean this scenario would be consistent with WTO rules or politically acceptable for potential FTA partners. We must consider about political feasibility of our scenarios. Additionally, we have not examined the fiscal cost of this policy choice here. This would be essential for policy design during the next stage.

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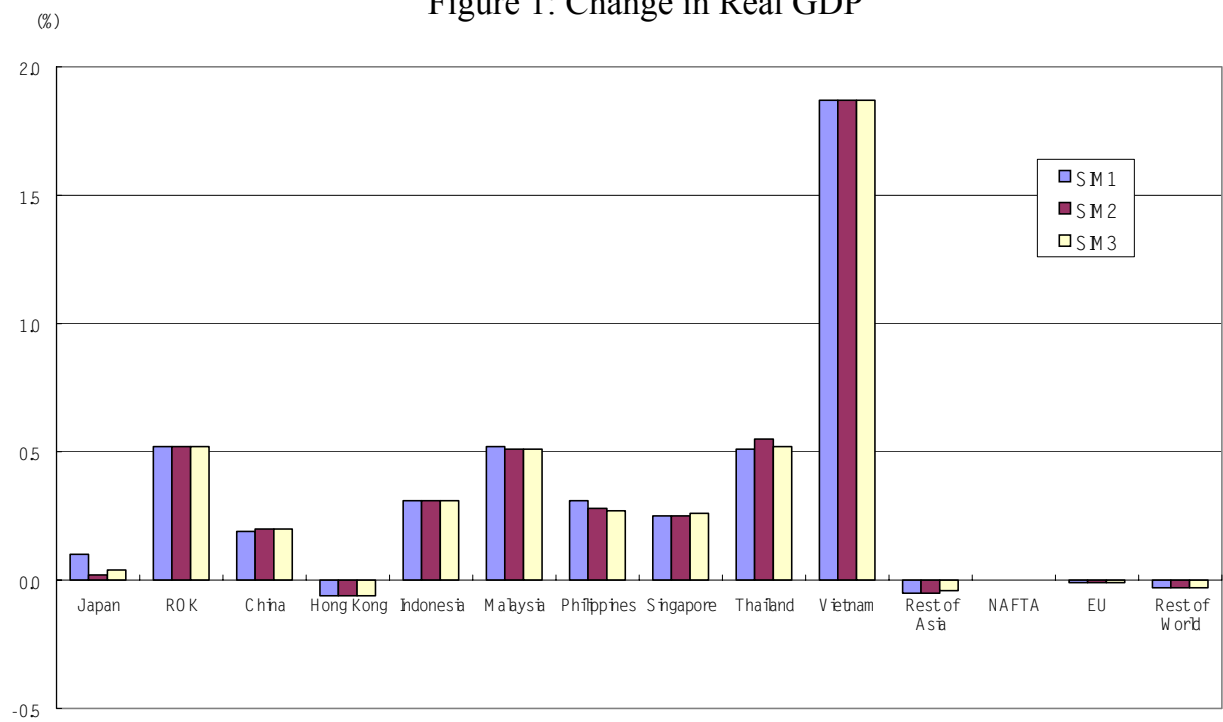
Figure 1: Change in Real GDP
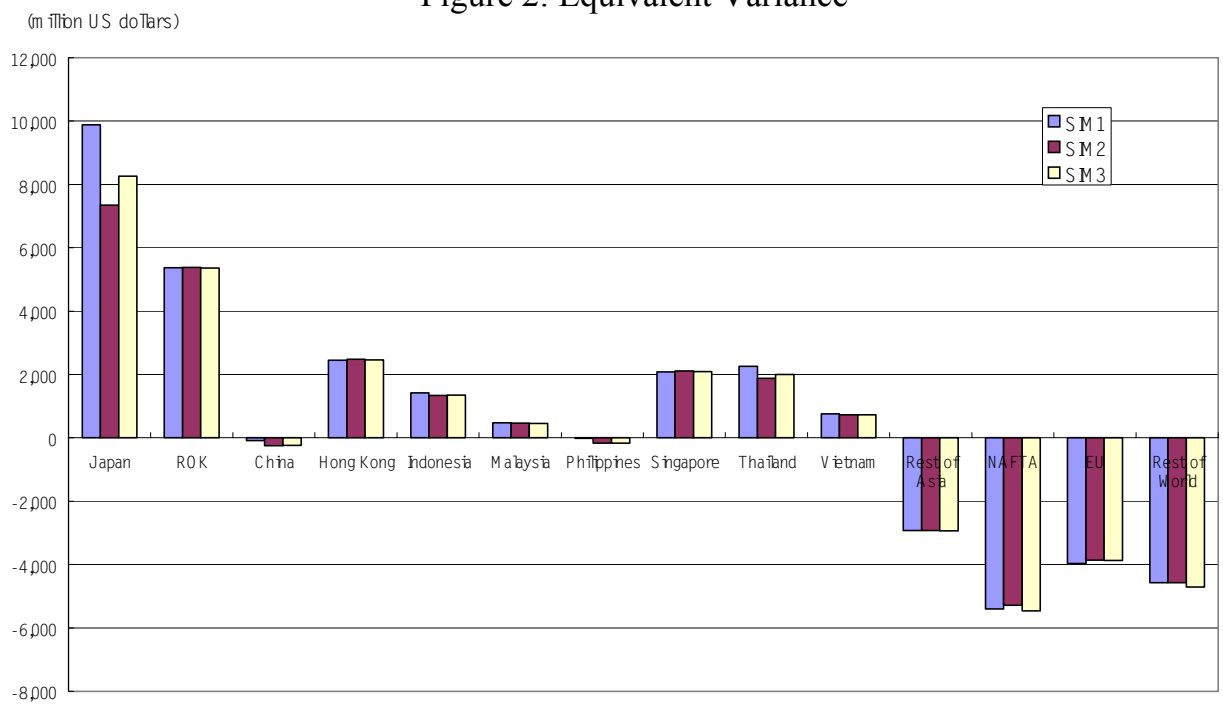
(%)

Figure 2: Equivalent Variance

(million US dollars)

Table 1: Japanes Tariff Rates on Imports from Various East Asian Regions

	Korea	China	Hong Kong	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
Rice	80.35	80.35	80.35	80.35	80.35	80.35	80.35	80.35	80.35
Cereal grains	18.01	23.55	57.86	17.22	16.79	16.94	52.78	16.78	16.79
Vegetables and fruits	30.98	30.98	30.98	30.98	30.98	30.98	30.98	30.98	30.98
Other crops	19.34	27.49	18.31	18.19	18.10	20.08	18.11	18.36	19.26
Meat and animal products	15.13	8.71	21.45	9.24	5.90	19.01	7.00	7.89	4.88
Raw milk	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural fibers	35.26	30.35	2.67	3.68	0.02	0.00	11.12	17.34	0.97
Meat products	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80	36.80
Dairy products	74.16	74.16	74.16	74.16	74.16	74.16	74.16	74.16	74.16
Other food products	27.00	27.31	27.52	28.01	14.08	26.33	24.63	32.22	27.59
Forestry	4.53	2.84	1.99	0.60	0.07	4.32	2.35	4.05	1.10
Fishing	6.33	5.21	2.39	3.23	3.68	2.92	2.80	4.05	3.44
Minerals	2.85	-0.58	1.03	-0.51	-0.42	0.37	2.96	1.72	-2.03
Textiles and Apparel	9.40	10.39	11.48	7.68	5.61	10.55	10.23	8.69	10.43
Chemical products	2.49	2.62	2.83	2.43	1.95	2.58	1.92	1.16	3.06
Metals	2.07	1.09	0.34	0.34	1.23	0.25	0.34	0.86	0.29
Machinery	0.08	0.30	0.30	0.18	0.03	0.34	0.02	0.08	0.73
Other manufacturing products	6.95	6.94	3.18	6.54	5.16	3.80	2.45	2.61	5.89

Source: GTAP Database Version 5

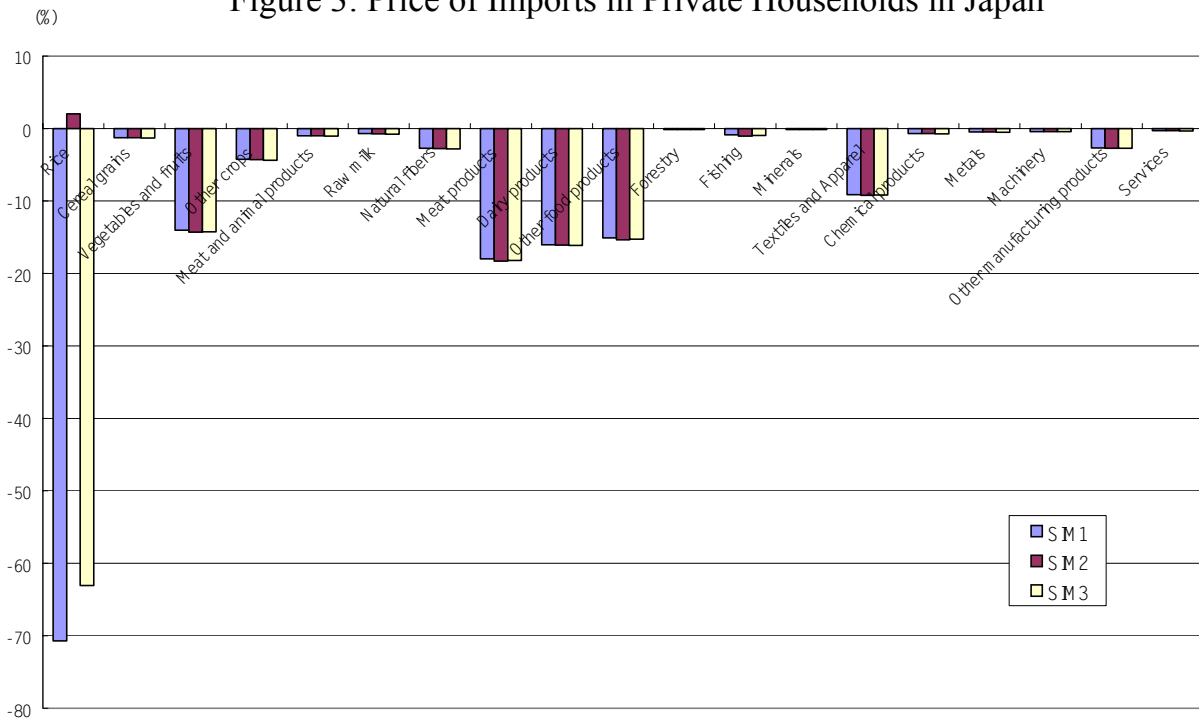## Figure 3: Price of Imports in Private Households in Japan

(%)

Legend:
- SM1
- SM2
- SM3

Figure 4: Change in Imports by Sector in Japan

(%)

Legend:
- SM1
- SM2
- SM3

8

Figure 5: Change in Trade Balance by Sector in Japan
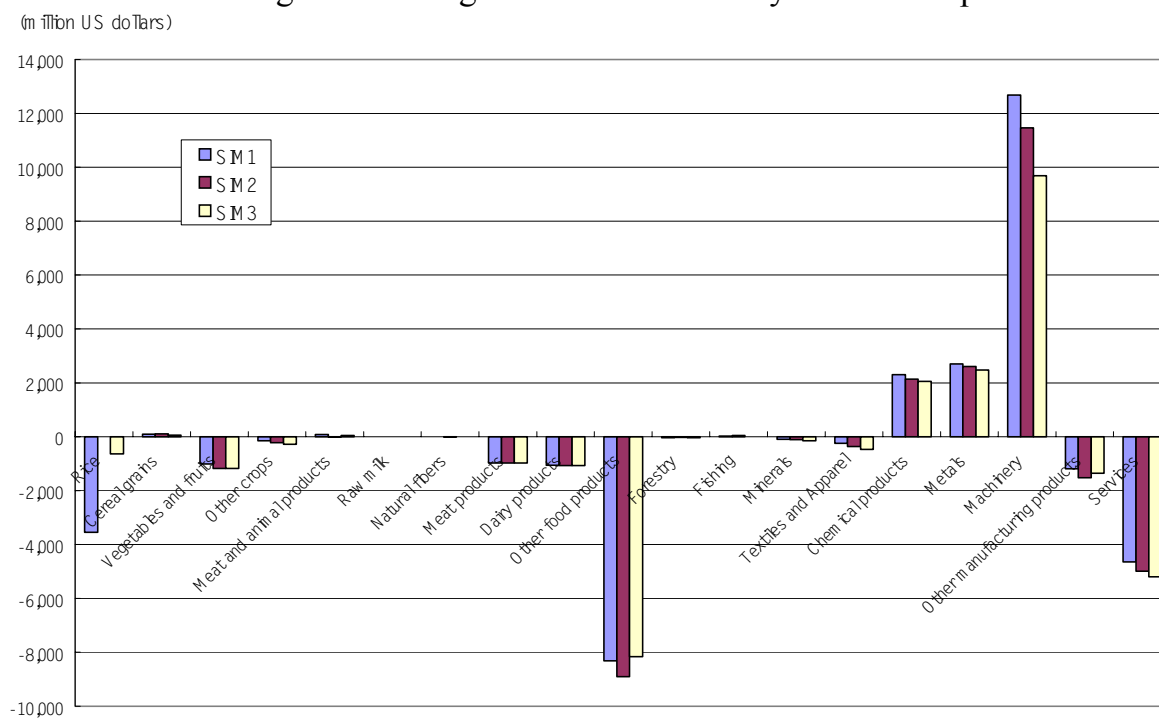
(million US dollars)

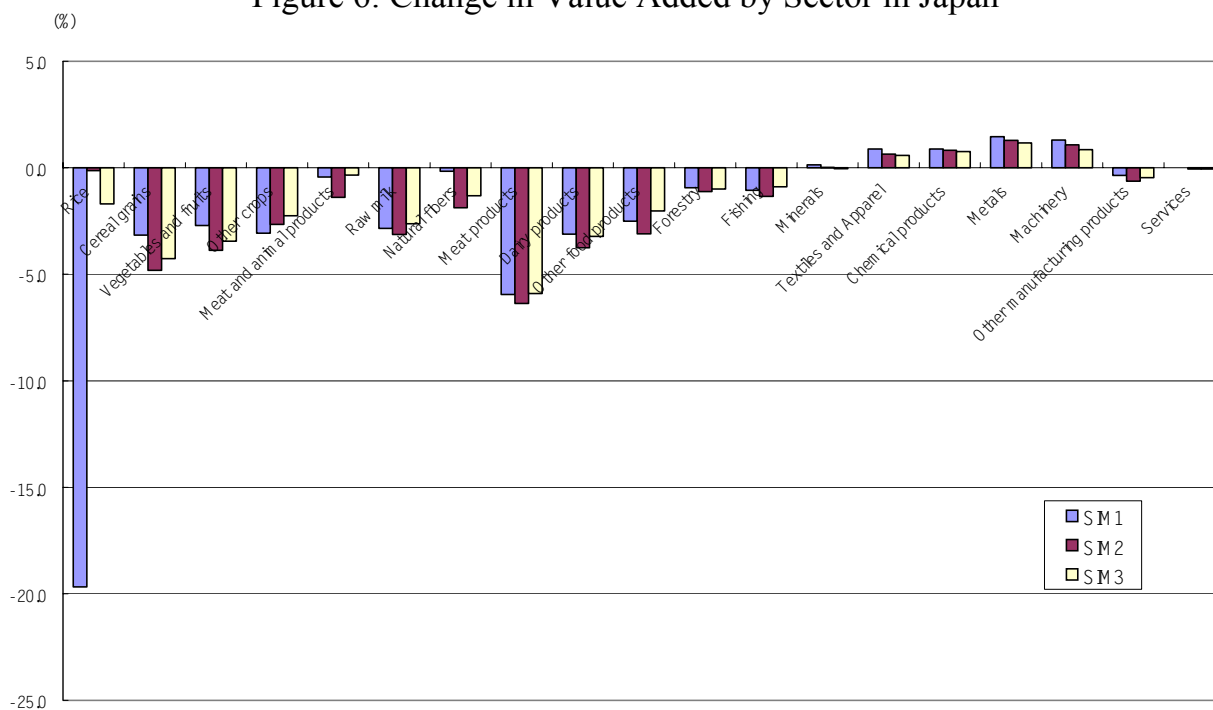## Figure 6: Change in Value Added by Sector in Japan

(%)

Figure 7: Change in Employment of Skilled Labor by Sector in Japan

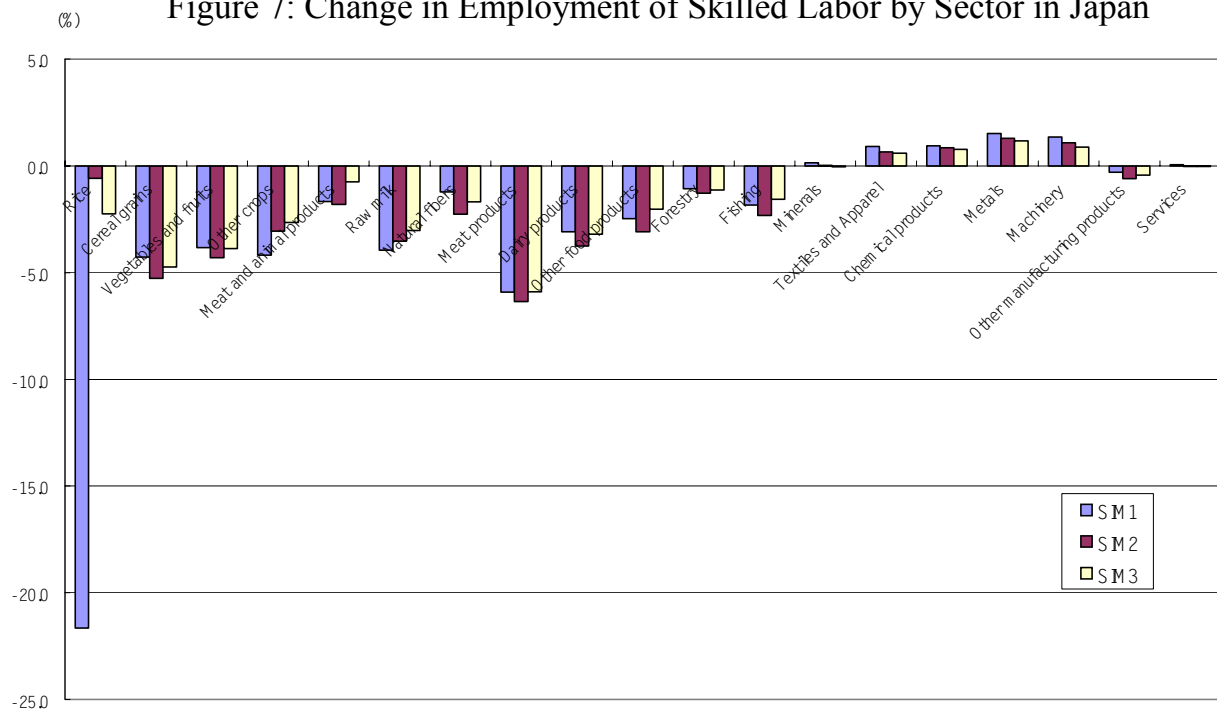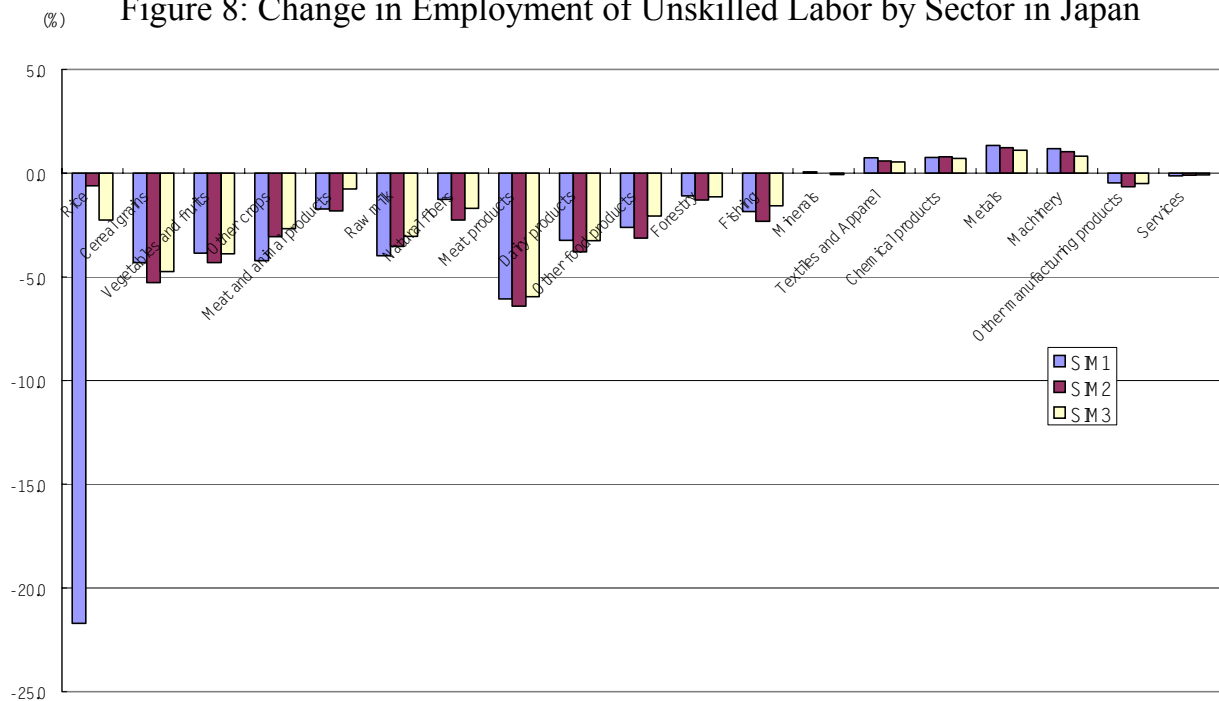Figure 8: Change in Employment of Unskilled Labor by Sector in Japan

Appendix table 1: Aggregation of Regions

Regions	Original regions
Japan	Japan
ROK	Korea
China	China
Hong Kong	Hong Kong
Indonesia	Indonesia
Malaysia	Malaysia
Philippines	Philippines
Singapore	Singapore
Thailand	Thailand
Vietnam	Vietnam
Rest of Asia	Taiwan; Bangladesh; India; Sri Lanka; Rest of South Asia
NAFTA	Canada; United States; Mexico
EU	Austria; Belgium; Denmark; Finland; France; Germany; United Kingdom; Greece; Ireland; Italy; Luxembourg; Netherlands; Portugal; Spain; Sweden
Rest of World	Australia; New Zealand; Central America, Caribbean; Colombia; Peru; Venezuela; Rest of Andean Pact; Argentina; Brazil; Chile; Uruguay; Rest of South America; Switzerland; Rest of EFTA; Hungary; Poland; Rest of Central European Assoc; Former Soviet Union; Turkey; Rest of Middle East; Morocco; Rest of North Africa; Botswana; Rest of SACU (Namibia, RSA); Malawi; Mozambique; Tanzania; Zambia; Zimbabwe; Other Southern Africa (Ang, Maur); Uganda; Rest of Sub-Saharan Africa; Rest of World

Appendix table 2: Aggregation of Sectors

Sectors	Original classifications
Rice	Paddy rice; Processed rice
Cereal grains	Wheat; Cereal grains nec
Vegetables and fruits	Vegetables, fruit, nuts
Other crops	Oil seeds; Sugar cane, sugar beet; Crops nec
Meat and animal products	Cattle, sheep, goats, horses; Animal products nec; Meat: cattle, sheep, goats, horses
Raw milk	Raw milk
Natural fibers	Plant-based fibers; Wool, silk-worm cocoons
Meat products	Meat products nec
Dairy products	Dairy products
Other food products	Vegetable oils and fats; Sugar; Food products nec; Beverages and tobacco products
Forestry	Forestry
Fishing	Fishing
Minerals	Coal; Oil; Gas; Minerals nec; Petroleum, coal products; Mineral products nec
Textiles and Apparel	Textiles; Wearing apparel
Chemical products	Chemical, rubber, plastic prods
Metals	Ferrous metals; Metals nec; Metal products
Machinery	Motor vehicles and parts; Transport equipment nec; Electronic equipment; Machinery and equipment nec
Other manufacturing products	Leather products; Wood products; Paper products, publishing; Manufactures nec
Services	Electricity; Gas manufacture, distribution; Water; Construction; Trade; Transport nec; Sea transport; Air transport; Communication; Financial services nec; Insurance; Business services nec; Recreation and other services; PubAdmin/Defence/Health/Educat; Dwellings