DDR and Japan
Rice import liberalization
and social reorganization

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Masahiro Omura*

(Analyses here are hypothetical, personal and only for the training purposes)

Data

- Base Version of "Doha and Egypt"
- Base 26x12 Database based on two prior database modifications as outlined below:
- 1) The base data (egybav2) has the SO scenario imposed on the database using the altertax procedure (creates version egyalt)
- 2) ATC implementation is simmulated by shocking the database (egyalt) to creates a new
- database (egyaltmf -- this database) to which Doha Scenario shocks are applied.

Shock applied

- Shock tms("Processed Rice",REG,"Japan") = target% 0; with EGT Closure(fixed wage&T/B)

	RTMS	rTMS
1	CENTAM	0
2	China	984
3	Egypt	1000
4	EU	344
5	India	827
6	Japan	0
7	LDC	845
8	MERCOSUR	0
9	MEXICO	0
10	ROW	835
11	USA	780
12	XME	0
	Total	5615

- Import tax on rice is extremely high in Japan.

Worldwide Welfare Effects of full liberalization (TMS = 0)

WELFARE	1 alloc_A1	2 endw_B1	5 tot_E1	6 IS_F1	Total
1 CENTAM	4.34	7.4	16.6	-3.9	24.5
2 China	-204	-555	687	-97.7	-170
3 Egypt	-0.315	0.051	-2.52	1.85	-0.935
4 EU	55.7	0	-3.21	-41.1	11.4
5 India	-2.69	10.9	19.9	-3.86	24.2
6 Japan	**13325**	0	**-1793**	175	**11707**
7 LDC	-2.73	-24.1	37.4	6.46	17.1
8 MERCOSUR	-3.78	-9.83	22.8	-4.52	4.7
9 MEXICO	12.1	11.2	-31.6	-2.68	-10.9
10 ROW	-183	-210	636	-57.5	186
11 USA	-39.5	0	379	31.3	370
12 XME	4.82	0	27.1	-3.01	28.9
Total	12966	-769	-4.51	0.46	12192

Japanese welfare gain exceeds 11B dollars.

Welfare Effects in Japan (1)

A1	WELFARE
alloc_A12	**13325**
endw_B13	0
tech_C14	0
pop_D1	0
5 tot_E1	-1793
6 IS_F17	175
pref_G1	0
Total	11707

A21	CNTalleffkr
pfacttax	230
2 prodtax3	1814
inputtax	181
4 contax	197
5 govtax	3.34
6 xtax	0
7 mtax	**10899**
Total	13325

TTAX1	2 mtax
CENTAM	-0.104
2 **China**	4163
3 Egypt	-0.022
4 EU	-20.7
5 India	73.5
6 Japan	0
7 LDC8	225
MERCOSUR	-2.56
9 MEXICO	-2.41
10 **ROW**	3550
11 **USA**	2914
12 XME	-0.262
Total	10899

A21	OTAX
6 AppLeat	16.6
7 cartrn	64.1
9 Chemical	74.9
10 Con	-15.4
11 Elec	35.6
14 Lmf	28.2
15 LVS	10.7
16 MacElct	**315**
17 Min	17.2
18 Mtl	72.1
19 oMnfcs	18.6
20 OSR	**186**
22 pfbev	**387**
23 Rice_Pro	-6.78
24 Rice_Pdy	**556**
25 Textile	21.5
26 TrdFinsvc	49.9
27 Trncomsvc	-35.3
30 Wdpap	19.2
Total	1814

Efficiency gain is large in import as well as rice, beverage and electric machine sectors.

Welfare Effects in Japan (2)

TOT	1 percent	2 value	Total
1 pworld	-0.04	-193	-193
2 pexport	-0.305	-1461	**-1461**
3 pimport	-0.029	-139	-139
Total	-0.375	-1793	-1794

| ps[*Japan]	(Sim)				
Land	-38.13	Energy	-0.12	Rice_Pad	-6.86
UnSkLab	-0.32	Fibers	-2.28	Rice_Pro	-10.18
SkLab	-0.12	Lmf	-0.28	Textile	-0.27
Capital	-0.33	LVS	-0.95	TrdFinsvc	-0.41
NatRes	0.56	MacElct	-0.27	Trncomsvc	-0.29
AppLeat	-0.29	Min	-0.28	Vegftnt	-4.47
cartrn	-0.28	Mtl	-0.26	VegOilFat	-0.58
Cereal	-4.88	oMnfcs	-0.32	Wdpap	-0.28
Chemical	-0.27	OSR	-0.31	Wheat	-3.44
Con	-0.29	OthAg	-2.6	CGDS	-0.29
Elec	-0.29	pfbev	-1.63		

Decline in prices of factor and intermediate products resulted in the decline of export prices, and worsened the terms of trade.

Welfare Effects in Japan (3)

A21	OTAX
16 MacElct	315
20 OSR	186
22 pfbev	387
23 Rice_Pro	-6.78
24 Rice_Pdy	556
Total	1814

11 qfe[**Japan]	MacElct	15 OSR	17 pfbev	18 Rice_Pro	19 Rice_Pad
1 Land	31.13	30.65	29.29	-35.81	-53.38
2 UnSkLab	1.17	0.33	1.05	-77.1	-65.25
3 SkLab	0.92	0.08	0.83	-77.15	-65.26
4 Capital	1.18	0.35	1.07	-77.1	-65.25
5 NatRes	0	0	0	-0.13	-0.44

Output efficiency gain was achieved by replacement of primary factors.

Trade-off between welfare gain and difficulty related to replacement of Labor and Land
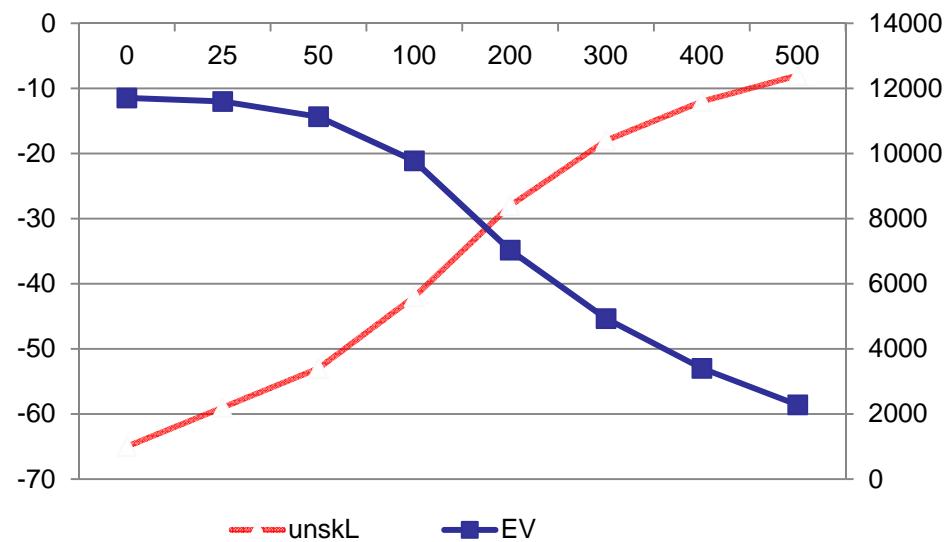
There is a tradeoff between the welfare gain and the social difficulty related to the replacement of labor and land.

Social reorganization required in case of liberalization

qfe*

	Rice Sec
Land	−66.16
UnSkLab	−81.13
SkLab	−81.15
Capital	−81.13
NatRes	−0.39

- **Equation** ENDWDEMAND
  qfe(i,j,r) = qva(j,r) - ESUBVA(j) * **[**pfe(i,j,r) - pva(j,r)**]**; (In this case afe=0)

  In case of liberalization, massive displacement of factors in rice sector will occur.   Displased factors need to be absorbed in other sectors. The social costs and speed of such a large-scale replacement is unknown.

* Simulation result with GTAP7 data, full liberalization in paddy and processed rice.

Japanese pfe	1 GrainsCrops	2 Rice	3 MeatLstk	4 CMT	5 Extraction	6 ProcFood	7 MIL	8 SGR
1 Land	−37.4	−78.7	−33	−22.6	−37.3	−22.9	−23.1	−23
2 UnSkLab	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2
3 SkLab	0	0	0	0	0	0	0	0
4 Capital	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2
5 NatRes	−4.5	−88.8	2.5	1.9	2.4	1.1	0.6	0.8
Total	−42.2	−167.8	−30.9	−21	−35.2	−22.1	−22.8	−22.5
	9 TextWapp	10 LightMnfc	11 HeavyMnfc	12 Util_Cons	13 TransComm	14 OthServices	15 CGDS	Total
	−22	−22	−22	−21.3	−19.3	−22.1	−24.7	−431.3
	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2	−2.8
	0	0	0	0	0	0	0	0.7
	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2	−0.2	−2.5
	0.3	0.3	0.3	0	0	0	−0.3	−83.5
	−22	−22	−22	−21.6	−19.6	−22.3	−25.3	−519.4

Thank you for your attention.

Long live GTAP!