

A Korea-Japan FTA : Is Korea Losing?

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Inkyo Cheong
KIEP

I. Summary of Previous Studies and Major Issues

◆ **Summary of KIEP(2000) Study on Reciprocal Tariff Eliminations**

- **Reduction of Korea's GDP and Worsening of Korea's Trade Balance**
- **Contraction of Major Industries such as Electronics, Heavy and Chemical Industries → Worsening of Korea's Industrial Structure**
- **Inflows of FDI under the FTA → Improve Korea's Trade Structure and Global Trade Balance**

◆ **Studies by Other Research Institutes:**

- **Welfare: KIET and IDE Produced Positive Results, KIEP Estimated Opposite One.**
- **GDP: KIET, KIEP, BDS(2000) – Negative
IDE - Positive**
- **Korea's Trade Balance with Japan: All Produced
Negative Results.**

◆ Different Results:

- Specification of Economic Model
- Simulation Design
- Liberalization Shocks
- Other Technical Matters

Economic Effects of Tariff Elimination Between Korea and Japan (Static Approach)

		KIEP	KIET	IDE	BDS¹⁾
Korea	Welfare(%)	-0.19	0.48	0.38	
	GDP(%)	-0.07	-0.07	0.38	-0.23
	TB with Japan(Bn \$)	-6.09	-3.36	-4.18	-
	Global TB(Bn \$)	-1.54	-0.69	-1.71	-
Japan	Welfare(%)	0.14	-	0.04	
	GDP(%)	0.04	-	0.00	0.18
	TB with Korea(Bn \$)	6.09	-	4.18	-
	Global TB(Bn \$)	-	-	2.74	-

**KIEP Study with the Consideration of
Productivity Enhancement under the FTA
Produced Similar Results with Those
of the IDE**

Economic Effects of the FTA Between Korea and Japan (Effects of Productivity Enhancement)

		KIEP	IDE
Korea	Welfare(%)	11.43	7.09
	GDP(%)	2.88	8.67
	TB with Japan(Bn \$)	-0.44	-2.46
	Global TB(Bn \$)	3.01	40.80
Japan	Welfare(%)	-	9.29
	GDP(%)	-	10.44
	TB with Korea(Bn \$)	-	2.46
	Global TB(Bn \$)	-	18.20

◆ **Limitations in the Previous Studies**

1. GTAP Parameters

2. Liberalization on NTBs and Services are Not Covered

- **Services: Brown, Deardorff and Stern(2001)**

3. Tariff Rates in GTAP Database

- **Agricultural Sector**
- **Applied Tariff Rates**

4. Model Specifications

- **Scale Economies**

5. Exogenous Control of the Inflow of FDI or Productivity Growth

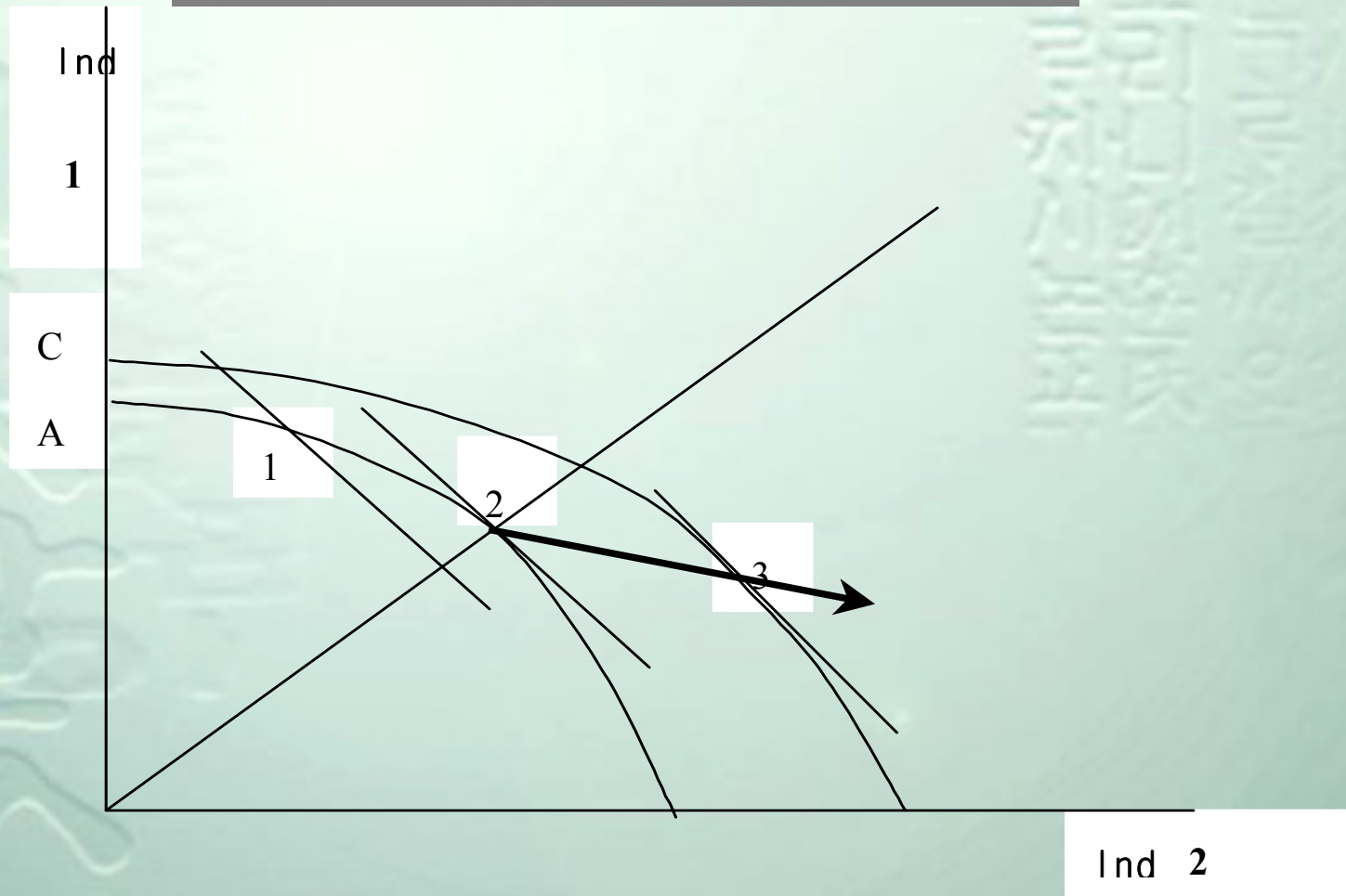
- **Capital Accumulation Effects**

III. Model, Closure, Data and Parameters

◆ Investment and Effects of Capital Accumulation

- Baldwin(1989), Edwards(1992), Levine and Renelt(1992), Grossman and Helpman(1991, 1995), Baldwin and Venables(1995), Levine and Renelt(1992)
- Baldwin and Venables(1995): Capital Accumulation Effects
- Francois, McDonald and Nordstrom(1997)

Effects of Capital Accumulation



Francois, McDonald and Nordstrom(1997)

GTAB Parameters and Korea CGE Parameters

	GTAP				Korean Parameter			
	Arming- ton	Import Source	Primary Factors	Income	Arming- ton	Import Source	Primary Factors	Income
1. Grains	2.2	4.4	0.3	0.0	0.5	3.2	2.5	0.5
2. Other Agr	2.2	4.4	0.2	0.2	2.0	3.0	0.7	0.5
3. Meats	2.4	4.7	0.5	0.1	1.8	1.8	0.9	1.2
4. Forestry	2.8	5.6	0.2	1.2	1.4	2.2	1.9	1.2²⁾
5. Fishery	2.8	5.6	0.2	0.2	0.9	3.4	1.3	0.7
6. Mining	2.8	5.6	0.2	0.7	0.0	1.9	0.8	3.0
7. Proc. Food	2.4	4.8	1.1	0.3	2.4	4.8	1.9	1.0
8. Textiles	2.2	4.4	1.3	0.5	1.6	1.4	2.4	0.7
9. Clothings	4.4	8.8	1.3	0.6	3.1	2.1	3.3	1.1
10. Chemicals	1.9	3.8	1.3	1.2	1.4	1.1	1.4	0.7

Industry	GTAP				Korean Parameter			
	Arming- ton	Import Source	Primary Factors	Income	Arming- ton	Import Source	Primary Factors	Income
11. Steel	2.8	5.6	1.3	1.2	0.1	0.2	2.9	1.7
12. Auto	5.2	10.4	1.3	1.6	1.0	2.0 ¹⁾	3.1	2.8
13. O. Trans	5.2	10.4	1.3	1.2	1.3	0.6	1.3 ²⁾	1.2 ²⁾
14. Electronics	2.8	5.6	1.3	0.8	2.8 ²⁾	5.6 ²⁾	0.1	2.2
15. Machinery	2.8	5.6	1.3	0.8	3.6	7.2 ¹⁾	1.3 ²⁾	1.0
16. O. Manuf	2.4	4.8	1.3	1.0	0.4	1.2	1.1	1.2
17. Construction	1.9	3.8	1.4	0.7				
18. Trade · Trans	1.9	3.8	1.7	1.2				
19. Finance	1.9	3.8	1.3	1.7				
20. O. SVCs	2.0	4.0	1.3	1.3				

IV. Simulation Results.

1. Tariff Elimination

Impacts on Korea's Macroeconomic Variables

(unit: %, Bn \$)

	2000 Study	GTAP Parameters				GTAP+Korean Parameters			
		CRS		Scale Economy		CRS		Scale Economy	
		M-1	M-2	M-1	M-2	M-1	M-2	M-1	M-2
GDP	<i>-0.07</i>	0.22	0.94	0.30	1.41	0.21	1.08	0.33	1.62
<i>Prices</i>	<i>0.71</i>	0.37	0.14	0.23	0.15	0.48	0.20	0.31	0.15
Welfare	<i>-0.19</i>	0.28	0.74	0.33	1.19	0.30	0.80	0.38	1.25
EV	<i>-0.76</i>	0.11	0.29	0.13	0.46	0.12	0.31	0.14	0.47
Savings	-	0.68	1.02	0.60	1.48	0.77	1.19	0.71	1.67
Capital Stock	-	0.13	1.70	0.12	2.20	0.13	2.05	0.13	2.56
TOT	-	0.03	-0.16	-0.01	-0.18	0.13	-0.08	0.09	-0.14
△TB	<i>-1.53</i>	-0.10	-0.05	-0.10	-0.04	-0.11	-0.07	-0.11	-0.03

Impacts on Korea's Industry

(unit: %)

	2000 Study	GTAP Parameters				GTAP+Korean Parameters			
		CRS		Scale Economy		CRS		Scale Economy	
		M-1	M-2	M-1	M-2	M-1	M-2	M-1	M-2
Grains	<i>0.15¹⁾</i>	-0.04	0.07	0.05	0.14	0.38	0.76	0.63	1.14
Other Agr	<i>0.15¹⁾</i>	0.24	0.34	0.29	0.39	0.57	0.85	0.90	1.21
Meats	<i>0.15¹⁾</i>	4.75	5.09	6.10	6.47	5.00	5.66	6.62	7.49
Forestry	<i>0.02</i>	0.49	1.08	0.73	1.36	0.92	1.69	1.32	2.24
Fishery	<i>0.24</i>	1.15	1.35	1.26	1.46	2.44	2.98	3.12	3.75
Mining	<i>-0.30</i>	-0.58	0.26	-0.52	0.30	0.17	1.08	0.28	1.33
Proc. Food	<i>1.05</i>	3.92	4.34	6.30	6.85	4.04	4.69	5.91	6.83
Textiles	<i>0.69</i>	0.75	1.43	2.43	2.64	0.56	1.34	2.26	2.74
Clothings	<i>9 ~ 10</i>	4.34	5.15	6.19	6.37	4.16	5.13	6.24	6.70
Chemicals	<i>-0.79</i>	-0.21	0.57	0.13	1.04	-0.12	0.75	0.29	1.32

	2000 Study	GTAP Parameters				GTAP+Korean Parameters			
		CRS		Scale Economy		CRS		Scale Economy	
		M-1	M-2	M-1	M-2	M-1	M-2	M-1	M-2
Steel	<i>-1 ~ -2</i>	-0.61	0.47	-0.33	1.31	0.28	1.38	0.86	2.23
Auto	<i>0.68</i>	-0.78	0.24	-2.10	0.17	-0.50	0.71	-1.29	1.65
O. Trans	<i>-1.31</i>	-0.70	0.60	-10.25	-5.39	-1.17	0.24	-8.56	-4.94
Electronics	<i>-0.65</i>	1.48	2.34	2.93	4.10	1.14	2.16	1.94	3.61
Machinery	<i>-1.65</i>	-2.04	-0.93	-2.59	-1.13	-3.06	-1.67	-3.87	-2.02
O. Manuf	<i>-1.86</i>	-0.56	0.23	-0.56	0.40	-0.05	0.84	0.15	1.26
Construction	<i>0.19²⁾</i>	1.02	1.60	1.04	2.06	1.09	1.92	1.20	2.37
Trade · Trans	<i>0.19²⁾</i>	-0.11	0.66	-0.05	0.88	-0.17	0.73	-0.13	0.91
Finance	<i>0.19²⁾</i>	-0.07	0.61	-0.07	0.79	-0.09	0.72	-0.07	0.89
O. SVCs	<i>0.19²⁾</i>	-0.12	0.57	-0.03	0.85	-0.16	0.65	-0.06	0.92

2. Reducing NTBs

Impacts on Korea's Macroeconomic Variables

(unit: Bn \$)

	GTAP Parameters				GTAP+Korean Parameters			
	CRS		Scale Economy		CRS		Scale Economy	
	M-1	M-2	M-1	M-2	M-1	M-2	M-1	M-2
GDP	0.10	0.69	0.13	0.91	0.09	0.80	0.09	0.77
<i>Prices</i>	1.80	1.60	1.20	1.14	1.93	1.70	1.36	1.28
Welfare	0.94	1.32	0.74	1.34	0.93	1.34	0.75	1.20
EV	0.37	0.52	0.28	0.52	0.37	0.53	0.28	0.45
Savings	1.99	2.27	1.39	2.01	2.11	2.45	1.50	2.01
Capital Stock	0.10	1.39	0.09	1.55	0.11	1.69	0.07	1.34
TOT	1.23	1.07	0.88	0.77	1.35	1.17	1.06	0.94
△TB	-0.06	-0.01	-0.05	-0.01	-0.07	-0.03	-0.03	0.02

3. Overall Effects

Summary of Korea-Japan FTA

(unit: %, Bn \$)

	2000 Study(Tariffs +FDI)	GTAP Parameters				GTAP+Korean Parameters			
		CRS		Scale Economy		CRS		Scale Economy	
		M-1	M-2	M-1	M-2	M-1	M-2	M-1	M-2
GDP	2.81	0.32	1.63	0.43	2.32	0.30	1.88	0.42	2.39
Welfare	11.24	1.22	2.06	1.07	2.53	1.23	2.14	1.13	2.45
EV	45.49	0.48	0.81	0.41	0.97	0.48	0.84	0.42	0.91
TB w.r.t. Japan	-4.1	5.0	5.0	7.3	7.1	6.6	6.5	9.2	9.1
TB w.r.t. World	0.46	-0.16	-0.05	-0.15	-0.04	-0.18	-0.10	-0.13	-0.01

V. Conclusion

- 1. A KJFTA Can Be a Win-Win Game.**
- 2. Adjustment Costs → Political Leadership Is Required.**
- 3. Understand Strategic Importance of A KJFTA.**
- 4. Active Roles by Business Circle are Required.**
- 5. Response to Growing Regionalism.**

Thank you for Listening

and for Your Cooperation