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Global Trade Analysis Project

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Japanese External Policies and the Asian Economic Developments

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Summary

Japan has been the world's largest donor during the last ten years (Chart 1), although Japan's ODA ratio over GNI remains lower than the UN target of 0.7 per cent (Chart 2). Several features of Japan's ODA include a) high percentage of loans in particular to Asia (Chart 3) and b) high weighting for economic infrastructures (Chart 4).

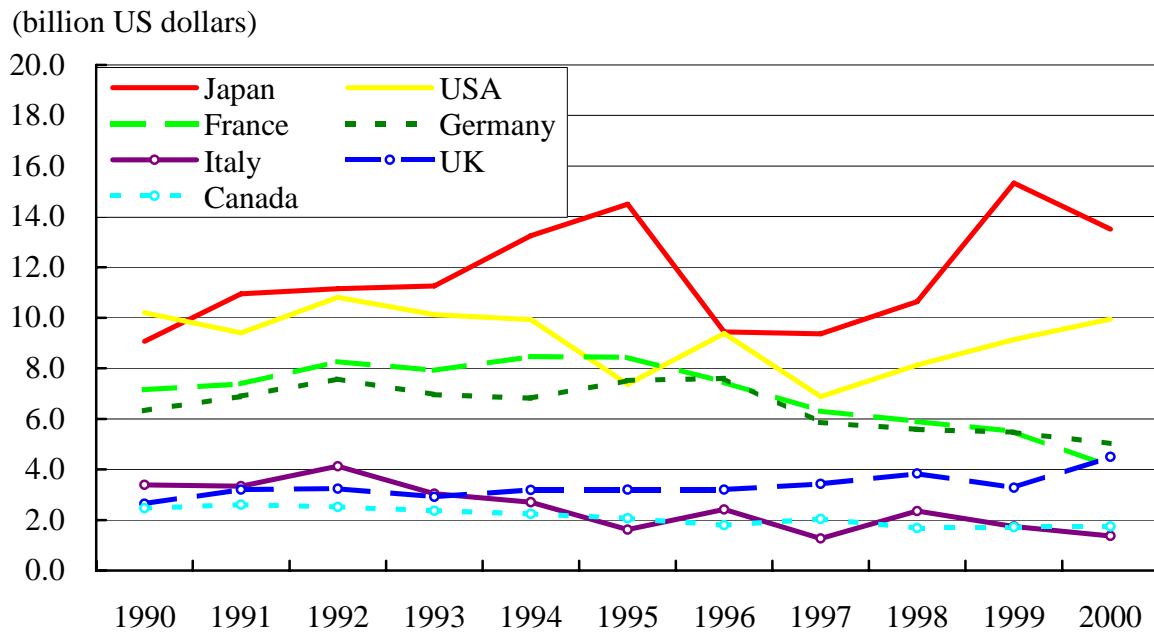
Asian economies have been getting much more important trade partners for Japan. Among others, China's share increased in a distinguished manner in the 1990s and recently exceeded a tenth both destination for and source of Japan's trade (Chart 5). While, there are salient features in the sectoral structure of Japan's trade with Asian economies. Energy, textiles, food, and electric machinery are dominant goods for export to Japan according to economies (Chart 6).

Impact of Japan's ODA capital flows into seven Asian economies: China, Indonesia, Malaysia, the Philippines, Thailand, Viet Nam and India (Chart 7, Table 2); and that of liberalization of Japanese imports from those economies (Table 3) are compared (Chart 8). Their economy-wide impacts are estimated by a modified version of the GTAP Model with Version 5 database aggregating to 16 regions and 8 sectors (Table 1).

Japan's ODA has a sizeable macroeconomic impact in real GDP, which ranges 0.1 to 1.7 per cent annually (Chart 9-A). While, trade liberalization is effective to improve economic welfare. Utility gains range 0.3 to 2.3 per cent (Chart 9-B), which exceed those according to Japan's ODA. Variations in those economic impacts are much more significantly observed when those are looked at by the industries (Chart 10).

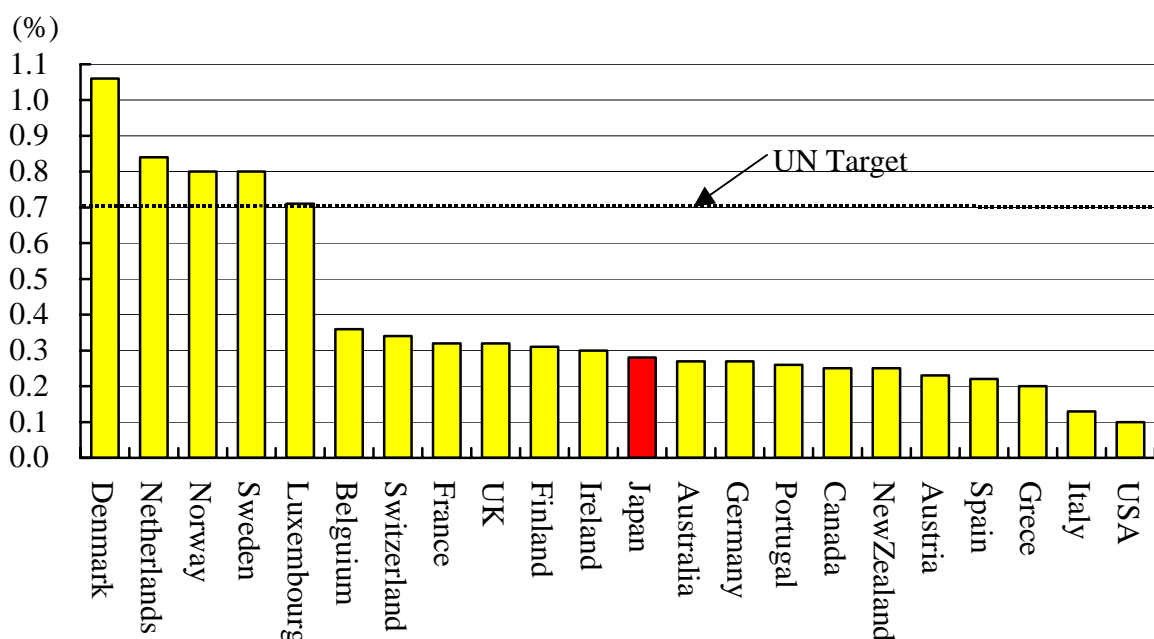
However, it may be noted that these outcomes are partly subject to macroeconomic assumptions underlying the model simulations as shown in Annex Tables.

Chart 1: Trends in Major Countries' ODA



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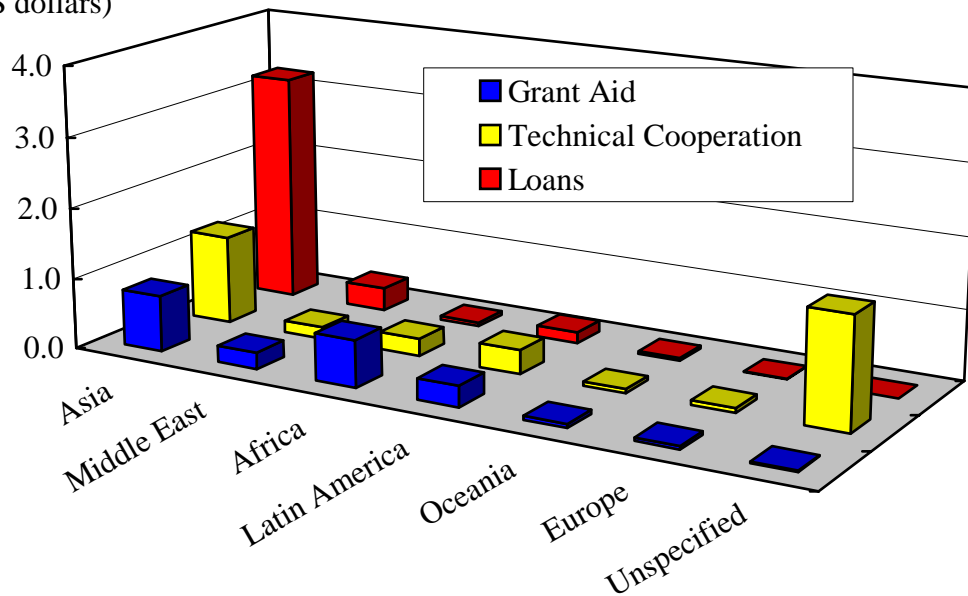
Chart 2: ODA/GNI Ratios in DAC (2000)



2

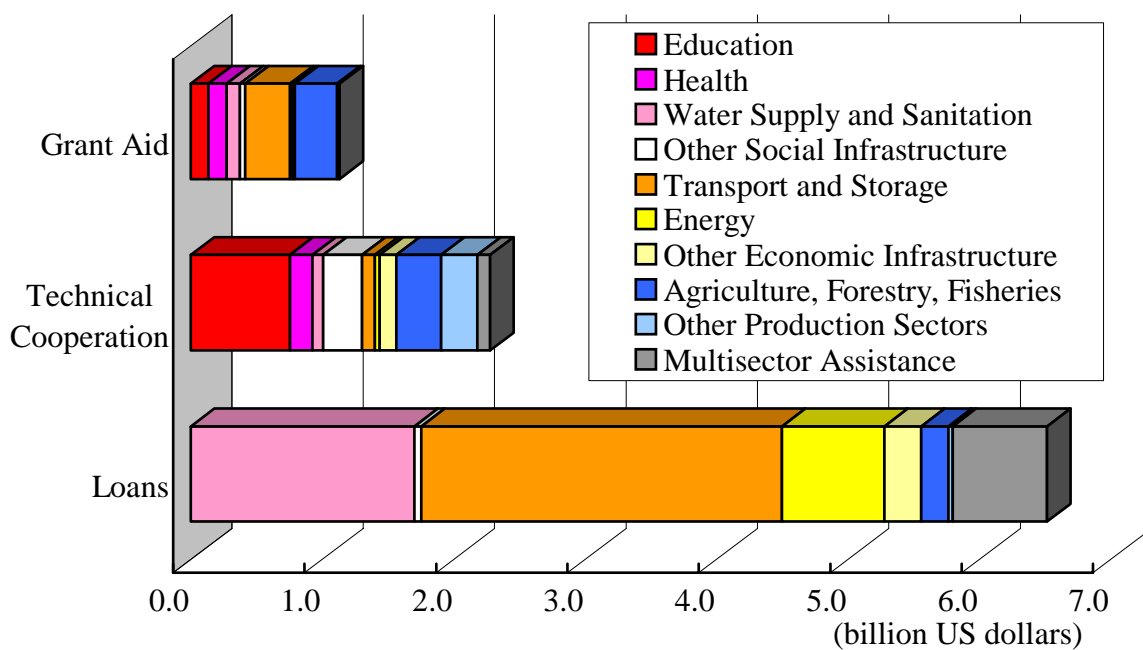
Chart 3: Geographical Distribution (2000)

(billion US dollars)



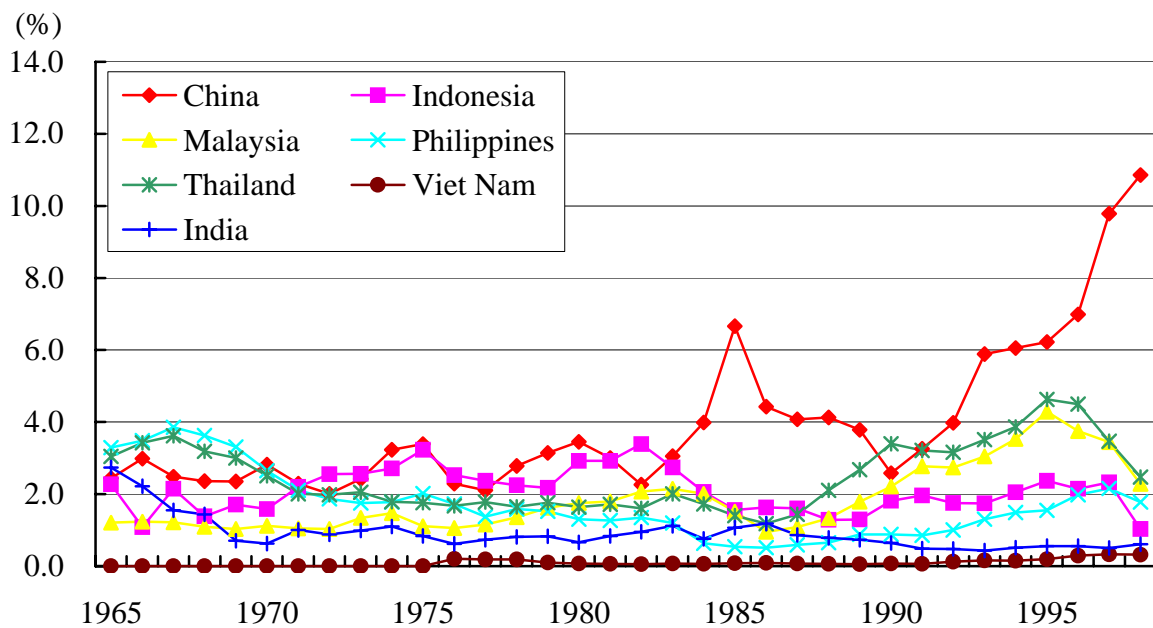
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Chart 4: Sectoral Distribution (2000)



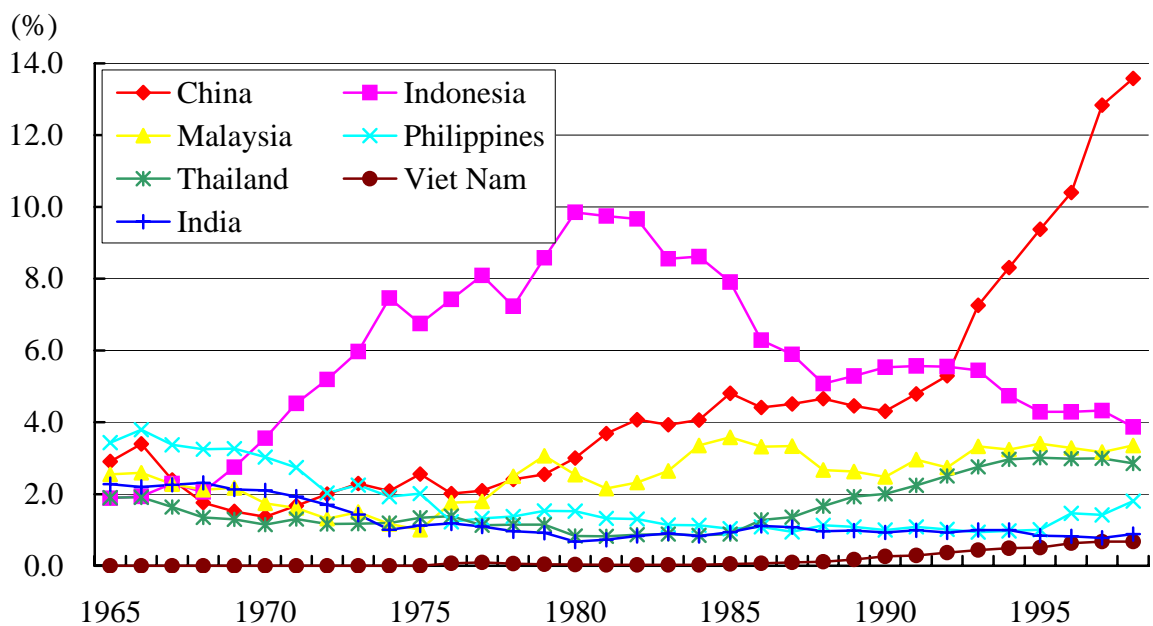
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Chart 5-A: Destinations for Japan's Export



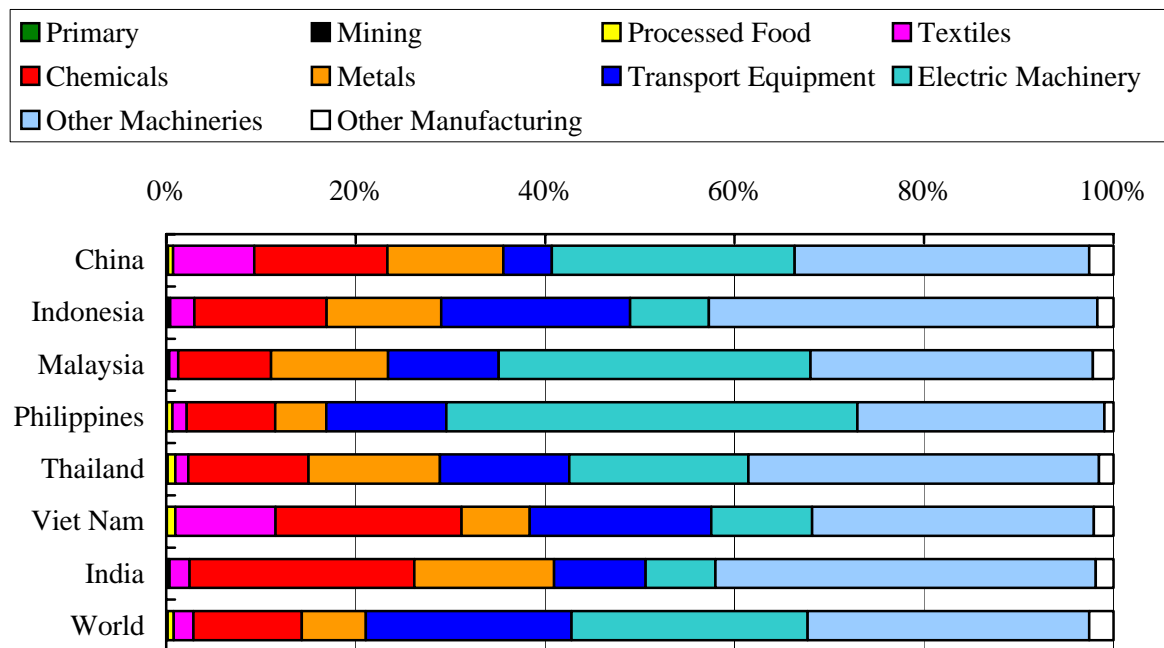
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Chart 5-B: Sources of Japan's Import



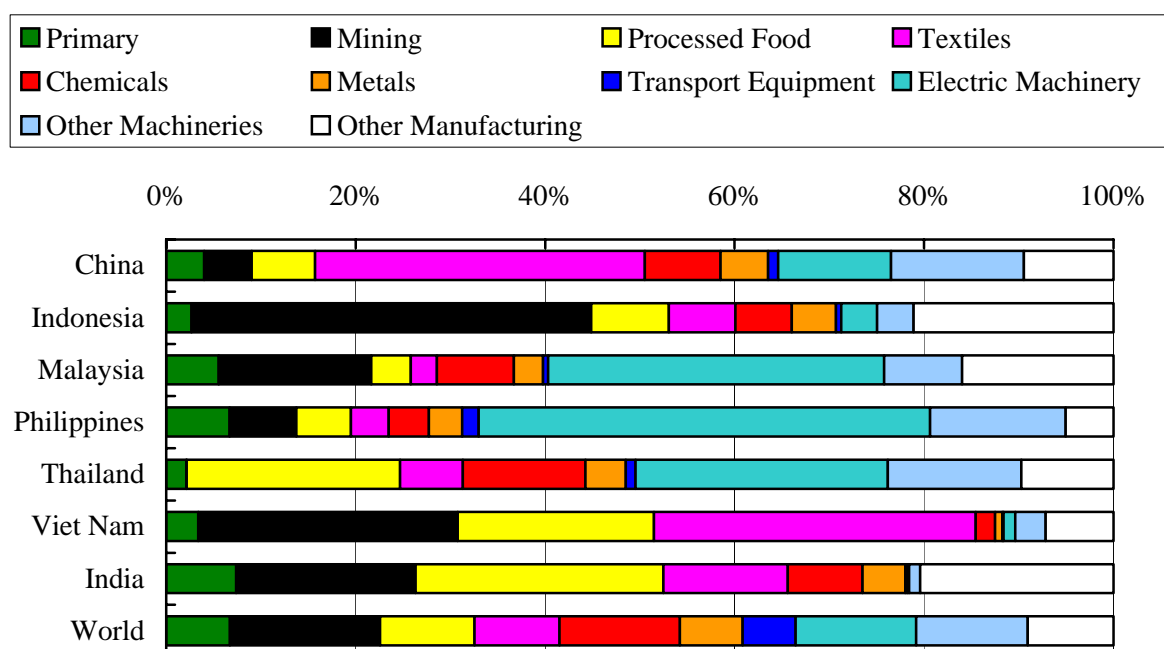
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Chart 6-A: Sectoral Structure of Japan's Export



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Chart 6-B: Sectoral Structure of Japan's Import



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Macroeconomic Assumptions in Simulation

Constant Return to Scale, Perfect Competition

Exogenous Labour Supply by the Economies

Endogenous Capital Accumulation (in the rest of shocked Asian economies)
under the fixed saving ratio
without international capital flows which equalize rate of return on capitals

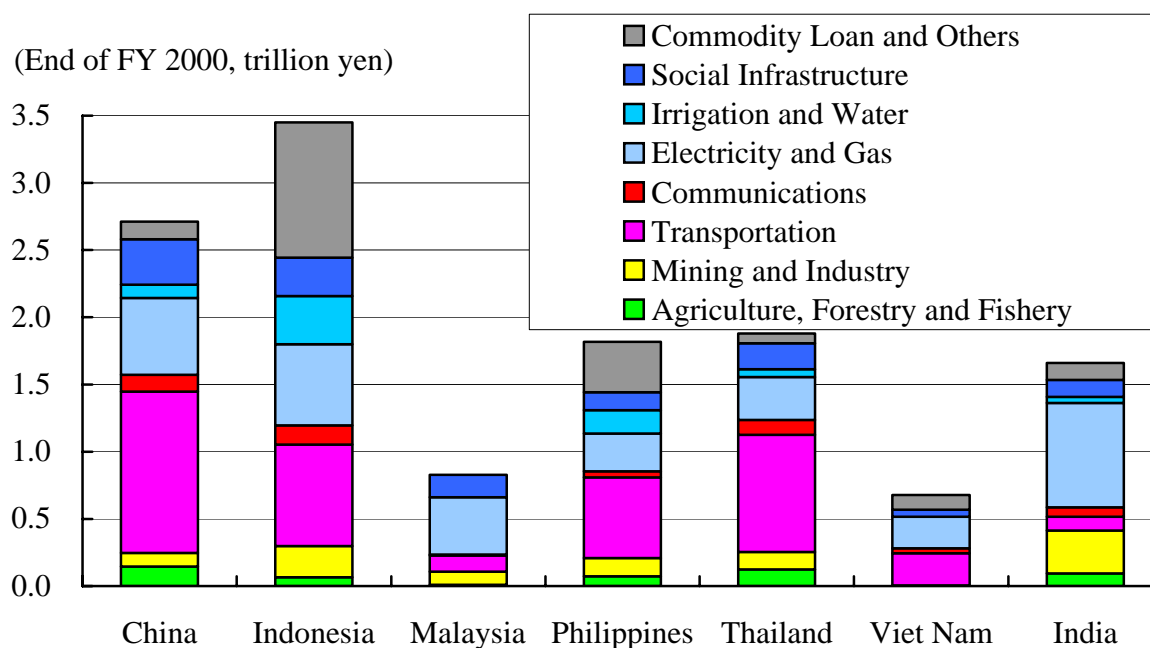
Endogenous Trade Balance

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Table 1: Regional and Sectoral Aggregation

Countries and Regions		Industries/Commodities
Japan	South Asia	AGR: Agriculture, Forestry & Fishery
China	Asian NIEs	MFG: Mining & Manufacturing
Indonesia	Oceania	EGW: Electricity, Gas & Water
Malaysia	USA	CNS: Construction
Philippines	Canada	T_T: Trade & Transport
Thailand	Latin America	CMN: Communication
Viet Nam	Western Europe	OSP: Other Private Services
India	Rest of World	PUB: Public Services

Chart 7: Cumulated ODA Loans by Sectors



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Table 2: ODA Capital Flows to Asian Countries

(average percentage of sectoral capitals in 1996 - 2000)

	AGR	MFG	EGW	T_T	CMN	PUB	Total
China	0.27	0.02	3.26	1.03	0.43	1.11	0.31
Indonesia	0.39	0.29	28.85	1.46	3.64	1.58	1.11
Malaysia	0.07	0.11	10.11	0.23	0.32	3.22	0.38
Philippines	1.05	0.64	9.09	2.38	3.45	5.65	1.55
Thailand	1.12	0.09	3.99	1.45	4.02	3.51	0.65
Viet Nam	0.00	0.19	137.78	22.61	68.29	29.14	4.05
India	0.17	0.37	5.46	0.12	1.52	0.24	0.40

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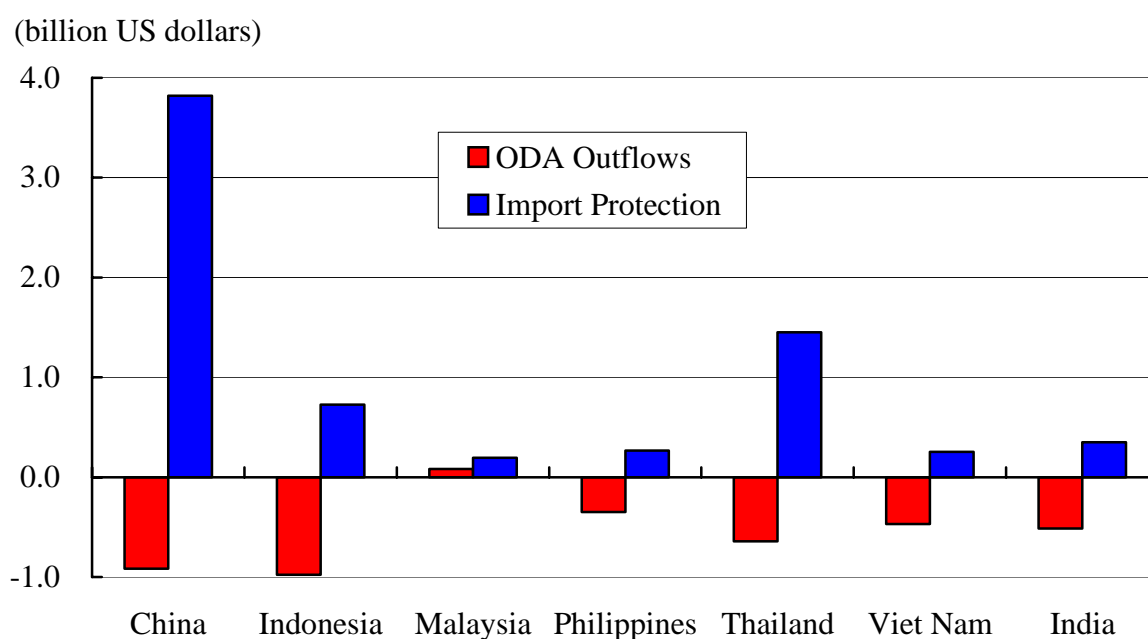
Table 3: Import Protection

(%)

	Japanese Import			Japanese Export		
	Primary	Secodary	Average	Primary	Secodary	Average
China	33.2	8.0	8.6	11.3	15.6	15.2
Indonesia	14.2	5.6	5.5	11.1	9.9	9.6
Malaysia	2.7	2.0	1.9	40.0	8.5	8.4
Philippines	40.8	3.5	5.6	20.0	6.4	6.2
Thailand	22.8	14.9	13.4	33.3	17.3	16.8
Viet Nam	19.7	12.0	11.5	0.0	19.0	17.5
India	29.9	11.9	11.3	50.0	27.0	23.5
World	42.1	6.8	7.0	12.2	7.0	6.1

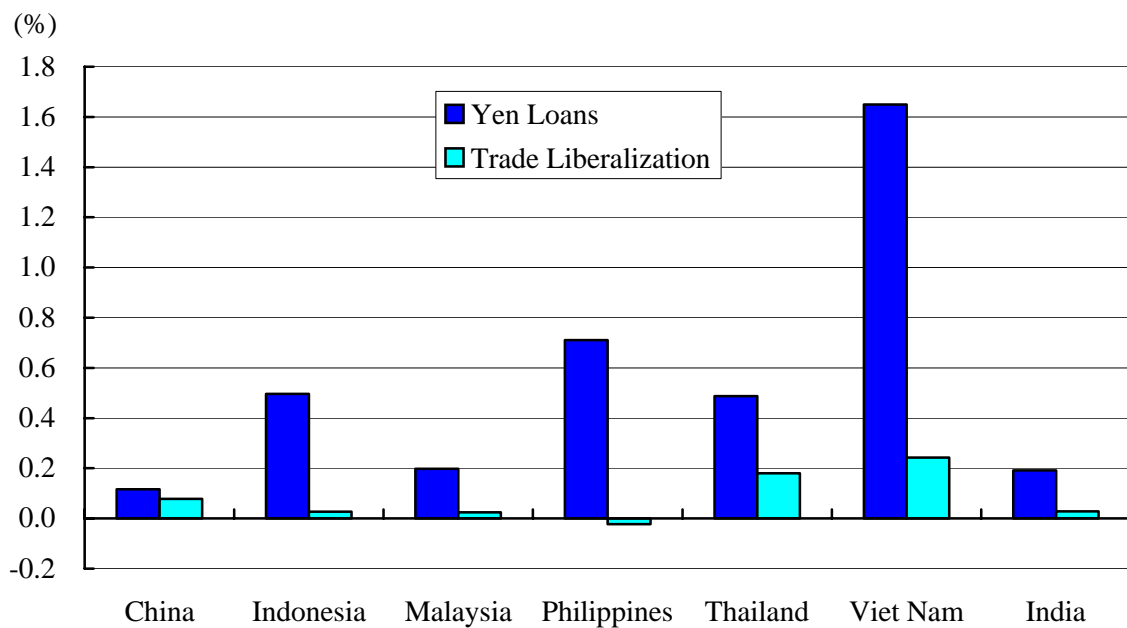
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Chart 8: Impact on Japanese Fiscal Balance



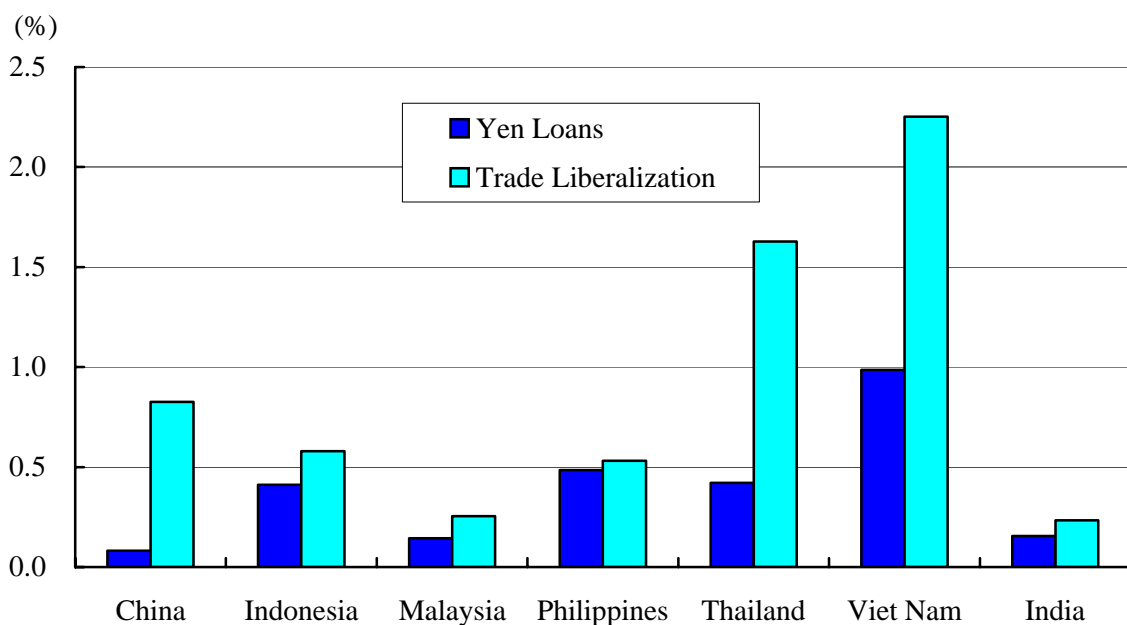
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Chart 9-A: Real GDP Gains



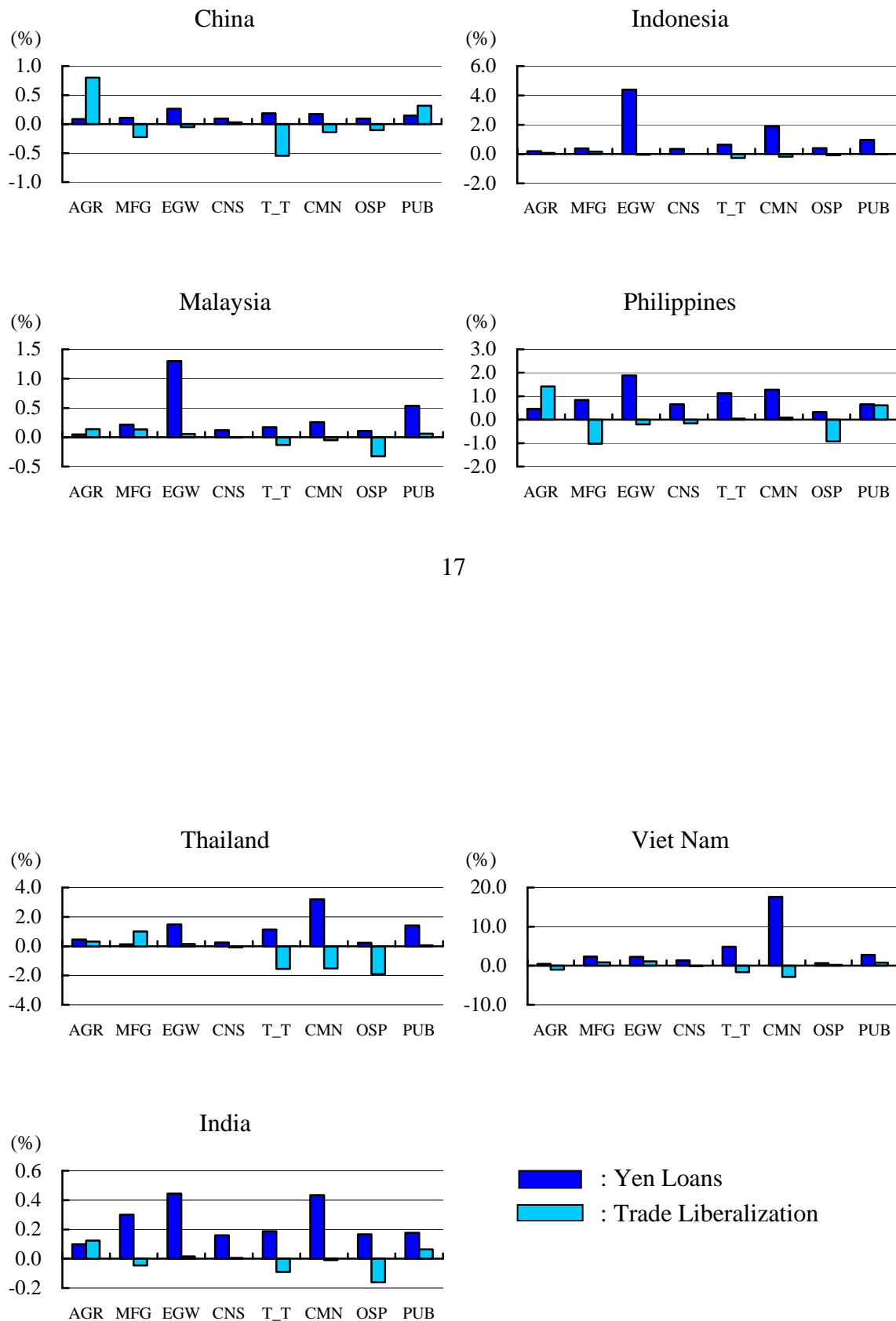
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Chart 9-B: Utility Gains



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Chart 10: Changes in Industrial Structures



Annex Table A: Alternative Utility Gains - Yen Loans

	Caital Stock Fixed			Capital Accumulation		
	Standard	Endog. TB ROR	Equal.	Standard	Endog. TB ROR	Equal.
Japan	0.00	0.00	-0.02	0.00	0.01	-0.12
China	0.09	0.08	0.19	0.09	0.08	0.12
Indonesia	0.43	0.41	1.00	0.43	0.42	0.90
Malaysia	0.15	0.15	0.21	0.15	0.15	0.15
Philippines	0.49	0.49	0.61	0.49	0.49	0.58
Thailand	0.43	0.43	0.78	0.43	0.43	0.73
Viet Nam	1.03	0.99	1.82	1.03	0.99	1.77
India	0.17	0.16	0.35	0.17	0.16	0.28
South Asia	0.00	0.00	-0.03	0.00	0.01	-0.22
Asian NIEs	0.01	0.01	0.01	0.01	0.02	-0.19
Oceania	0.00	0.00	-0.01	0.01	0.01	-0.22
USA	0.00	0.00	-0.01	0.00	0.01	-0.16
Canada	0.00	0.00	-0.01	0.00	0.01	-0.15
Latin America	0.00	0.00	-0.01	0.00	0.01	-0.30
Western Europe	0.00	0.00	-0.02	0.00	0.01	-0.19
Rest of World	0.00	0.00	-0.01	0.00	0.01	-0.16
World	0.01	0.01	0.01	0.02	0.02	-0.14

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Annex Table B: Alternative Utility Gains - Trade Liberalization

	Caital Stock Fixed			Capital Accumulation		
	Standard	Endog. TB ROR	Equal.	Standard	Endog. TB ROR	Equal.
Japan	-0.15	-0.14	-0.10	-0.16	-0.11	-0.02
China	0.80	0.74	0.76	1.14	0.77	0.86
Indonesia	0.47	0.45	0.47	0.78	0.49	0.74
Malaysia	0.12	0.11	0.09	0.34	0.15	0.16
Philippines	0.38	0.39	0.34	0.22	0.43	0.23
Thailand	1.57	1.49	1.60	7.06	1.55	4.69
Viet Nam	1.78	1.81	2.21	1.71	1.85	3.47
India	0.22	0.21	0.21	0.39	0.25	0.30
South Asia	-0.04	-0.04	-0.06	-0.06	0.00	-0.10
Asian NIEs	-0.04	-0.04	-0.06	-0.02	-0.01	-0.06
Oceania	-0.06	-0.06	-0.08	-0.09	-0.03	-0.12
USA	-0.02	-0.02	-0.03	-0.02	0.01	-0.05
Canada	-0.02	-0.02	-0.02	-0.03	0.01	-0.03
Latin America	-0.01	-0.01	-0.02	-0.01	0.03	-0.03
Western Europe	-0.01	-0.01	-0.02	-0.02	0.02	-0.03
Rest of World	-0.04	-0.04	-0.05	-0.04	-0.01	-0.07
World	0.00	0.00	0.00	0.05	0.04	0.03

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