

Philippines' Competitiveness and Global Financial Meltdown: A Question of Japan's Role

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**Philippines' Competitiveness and Global Financial Meltdown:
A Question of Japan's Role***

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Abstract

The global financial crisis has affected all of Asia and hit the Philippine economy also hard. This is because global demand still represents a major factor behind Asia's export growth. Indeed, the relationship between U.S. import growth and Asian intraregional export growth has actually become stronger over time. Japan shifted her stance from exporting industrial products to the U.S. and Europe to constructing manufacturing bases in Asia after the 1985 Plaza Accord. This started to create greater interdependence in Asia, with the development of a singlewide factory region. This paper explores the changing structure of the Philippines' international trade and how the economy became so interdependent. How Japan has engaged in this development is also explained. By using measures like revealed comparative advantage and intra-industry trade, the Philippine economy is compared with other East Asian economies and found to possess similar trade structures with other East Asian countries. Suggested policy conclusion is to upgrade industrial structure, to make the structure different, and to use Philippines' unique strength of mobile human capital. Japan needs to be prepared not only to absorb productions in this area, but must also open and enlarge markets for such mobile natural persons.

JEL Classification: F13, F14, F15, F16, F21, F24

Keywords: export-oriented growth, RCA, intra-industry trade, FDI, remittance

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1. Introduction

The global financial crisis has affected all of Asia and the Philippine economy is no exception (albeit the shock of the 1997 Asian crisis was modest for the Philippines). What started out as a credit quality problem is related to the subprime housing loan problem in the United States which spread throughout the world through the interconnectedness of financial institutions and markets. For awhile, the impact on the Asian economies was less serious; the relatively good macroeconomic fundamentals and sound bank and corporate balance sheets of these economies insulated them from the financial turmoil. In addition, the region, inclusive of the Philippines, had been enjoying double-digit GDP expansion for the past decade.

However, following Lehman's collapse in September 2008, global investors dramatically reduced their exposure to the region, resulting in sharp declines in the Asian equity markets with depreciation of regional exchange rates. The rapid expansion of intraregional trade over the last decades seemingly suggests that Asia's reliance on external trading partners has shrunk. In reality, however, global demand still represents a major factor behind Asia's export growth. Indeed, the relationship between U.S. import growth and Asian intraregional export growth has actually become stronger over time.

Japan shifted her stance from exporting industrial products to the U.S. and Europe to constructing manufacturing bases in Asia after the 1985 Plaza Accord, when the yen exchange rate doubled in value within a year. This started to create greater interdependence in Asia, with the development of a singlewide factory region. Because this factory depended on U.S. and Europe final demand, the economic downturn of the U.S. and Europe has had a substantial effect on Asia. According to the Asian Development Bank, Philippine merchandise exports contracted by 2.6% in nominal U.S. dollars in 2008.¹ In particular, in December 2008 exports plunged by 40.3% (based on year-on-year changes). Merchandise imports, on the other hand, increased by 5.0% due to high world commodity prices during the year. Imports of capital goods, however, declined by 4.2%. This resulted in an increase in the Philippine trade deficit to \$12.6 billion, from \$8.4 billion a year earlier. Inflows of remittances helped keep the current account in surplus, although that surplus also fell to \$4.2 billion (2.5% of GDP). The overall balance-of-payments

¹*Asian Development Outlook 2009: Rebalancing Asia's Growth* SSN: 0117-0481 Publication

Date: March 2009.

surplus was \$89 million, down from a record \$8.6 billion in 2007. The consequence of this is a lower peso value, which in fact was down 13.0% against the U.S. dollar in 2008.

Thus, the global financial downturn has had a significant impact on the economy of the Philippines. The expanding global financial crisis has slammed the country with the force of a financial and economywide tsunami.

In the next section, we explore the changing structure of the Philippines' international trade and how the economy became so interdependent. How Japan has engaged in this development is explained in section 3. In discussing these issues, we follow a traditional approach, using the concepts of revealed comparative advantage, intra-industry trade, and so on. How has the Philippine economy fared compared with other East Asian economies? Is the economy complementary or competitive to the East Asian economies? These questions are addressed in section 4. Recent proliferation of regional agreements propels interdependence or because of strengthening interdependence has brought proliferation of FTA/EPAs in section 5. The last section concludes the paper.

2. Structure of International Trade of the Philippine Economy

Like other Asian growth pole countries, Philippine exports have been growing since the 1970s at double-digit rates. The Philippines has shifted its competitiveness structure as is shown in Table 1. A clear shift is observable in the list of top 10 SITC 2-digit sectors, from primary sector exports to exports of manufactured goods. In 1985, electronics (SITC 77) made up only a 5.8% share; but by 2006, it had become the largest export sector, comprising 44.8% of total exports. Semiconductors, electrical and electronic equipment, parts and components, and telecommunication products (SITC 77, 75, and 76) are listed in the above top ten sectors and their share totals 64.0%. These products are destined for the markets of the United States, the European Union and Japan.² Surely, the Philippine is no long a country of banana and light manufactured exports.

²Hal Hill, Chapter 7: Industry, in Arsenio Balisacan and Hal Hill (ed.), *The Philippine Economy: Development, Policies, and Challenges*, Ateneo De Manila University Press, Manila, 2003.

Table 1. Structural change in exports between 1985 and 2006

1985				
SITC Code	Content	Export Value (mil. \$)	Share	Cumulative Share
ST-93	Special transactions, commodity not classified according to class	140.16	30.28%	30.28%
ST-05	Vegetables and fruit	35.43	7.65%	37.93%
ST-42	Fixed vegetable oils and fats	34.84	7.53%	45.46%
ST-77	Electric machinery, apparatus and appliances, nes, and parts, nes	26.91	5.81%	51.27%
ST-84	Articles of apparel and clothing accessories	26.39	5.70%	56.97%
ST-28	Metalliferous ores and metal scrap	24.32	5.25%	62.23%
ST-68	Non-ferrous metals	24.29	5.25%	67.48%
ST-06	Sugar, sugar preparations and honey	18.91	4.09%	71.56%
ST-03	Fish, crustacean and molluscs, and preparations thereof	14.85	3.21%	74.77%
ST-24	Cork and wood	14.61	3.16%	77.93%
2006				
SITC Code	Content	Export Value (mil. \$)	Share	Cumulative Share
S3-77	Electric machinery, apparatus and appliances, nes, and parts, nes	2,122.75	44.77%	44.77%
S3-75	Office machines and automatic data processing equipment	817.75	17.25%	62.02%
S3-84	Clothing and accessories	262.43	5.54%	67.56%
S3-78	Road vehicles	156.06	3.29%	70.85%
S3-68	Non-ferrous metals	138.97	2.93%	73.78%
S3-33	Petroleum, petrol product	104.80	2.21%	75.99%
S3-05	Vegetables and fruit	96.28	2.03%	78.02%
S3-76	Telecomm. sound equip etc	94.16	1.99%	80.01%
S3-88	Photographic equipment and supplies, optical goods; watches, etc	79.88	1.68%	81.69%
S3-28	Metalliferous ores and metal scrap	69.56	1.47%	83.16%

Source: Calculations based on UN-Comtrade data.

The amazing shift in exports occurred from more agriculture and natural resource-based manufactures (such as processed food, beverages and wood products) to capital-intensive exports (such as electronics) that are intensive in the utilization of semi-skilled and technical labor. Growth of these exports is, however, not entirely due to domestic forces. As is the case for other East Asian countries, foreign direct investment (FDI) by multinational enterprises has contributed substantially to the change in export structure. This aspect is analyzed separately in another section.

3. Philippine's Comparative Advantage

The index of revealed comparative advantage (RCA) is often used as a simple measure of a country's pattern of specialization. A country specializes in a category of exports—presumably where it has a “revealed” comparative advantage—more than the rest of the world if the RCA index for exports has a value greater than 1.³ By calculating these indexes for time-series data, one can assess how RCA shifts over time. In fact, Bautista and Tecson (2003) analyzed this for the Philippines:

The Philippines has traditionally specialized in agriculture-based exports, especially processed food. However, starting in 1975, such specialization shows a rapid decline, with the RCA index for agriculture-intensive exports dipping below 1 in 1996. In contrast, one can observe a rising trend for manufactured exports, especially exports of labor-intensive goods, which eventually surpassed even processed food in their degree of specialization. By 1996, an emerging upward trend can also be observed for capital and technology-intensive exports.⁴

The Philippines used to be a leader in East Asia. When import substitution was a popular policy choice, the Philippines led East Asia in development. The country lagged behind in adopting an export orientation; nevertheless, during the past decade, the catch-up process has been remarkable and in the electronics sector, which is the major export sector, the structure of RCA turns out to be quite compatible to other high-growth Asian economies. Table 2 compares the RCA for the Philippines and Korea. In terms of sectors with high RCA, both countries include capital-intensive or high-technology sectors such as electronic machinery. The Philippines still lags behind Korea in its composition of RCA-strong industries; however, insofar as SITC 77 sector is concerned, the export value is largest and RCA turns out to be 3.31. In the case of Korea, the export value of this sector is also large, but the RCA is just 1.10.

³Bela Balassa, “Trade Liberalisation and ‘Revealed’ Comparative Advantage,” *Manchester School of Economics and Social Studies*, 33(1): 91–123, 1965.

⁴Romeo Bautista and Gwendolyn Tecson, Chapter 5: International Dimensions, in Arsenio Balisacan and Hal Hill (ed.), *The Philippine Economy: Development, Policies, and Challenges*, Ateneo De Manila University Press, Manila, 2003.

Table 2. RCA comparison: The Philippines and Korea, 2006

Philippines			Korea				
	Exports(mil.\$)	RCA		Exports(mil.\$)	RCA		
S3-56	fertilizer,except grp272	83.51	3.36	S3-57	plastics in primary form	11,610.92	2.06
S3-77	elec mch appar,parts,nes	21,227.50	3.31	S3-79	othr.transport equipment	22,290.70	1.99
S3-42	fixed veg. fats and oils	579.85	3.27	S3-67	iron and steel	15,823.59	1.81
S3-63	cork, wood manufactures	666.59	3.08	S3-87	scientific equipment nes	16,222.85	1.70
S3-06	sugar,sugr.preptns,honey	135.89	2.98	S3-33	petroleum,petrol.product	20,788.77	1.69
S3-05	vegetables and fruit	962.82	2.84	S3-61	leather, leather goods	845.55	1.61
S3-02	dairy products,bird eggs	93.87	2.78	S3-76	telecomm.sound equip etc	37,300.38	1.57
S3-12	tobacco,tobacco manufact	138.49	2.19	S3-78	road vehicles	42,418.41	1.53
S3-75	office machines,adp mach	8,177.54	2.06	S3-51	organic chemicals	12,549.42	1.52
S3-68	non-ferrous metals	1,389.74	1.73	S3-56	fertilizer,except grp272	236.91	1.39
S3-28	metalliferous ore,scrap	695.58	1.73	S3-65	textile yarn,fabric,etc.	10,109.51	1.31
S3-84	clothing and accessories	2,624.30	1.64	S3-68	non-ferrous metals	7,104.68	1.29
S3-88	photo.apparat.nes;clocks	798.78	1.53	S3-62	rubber manufactures, nes	2,971.25	1.13
S3-97	gold,nonmontry excl ores	300.38	1.45	S3-26	textile fibres	1,044.05	1.11
S3-81	prefab buildgs,ftng etc	194.36	1.40	S3-58	plastic,non-primary form	2,375.08	1.11
S3-29	crude animal,veg.materl.	80.56	1.21	S3-77	elec mch appar,parts,nes	48,545.90	1.10
S3-03	fish,crustaceans,mollusc	387.40	1.11	S3-72	special.indust.machinery	9,778.78	1.03
S3-96	coin nongold noncurrent	0.28	1.03	S3-53	dyes,colouring materials	1,144.26	0.89
S3-43	animal,veg.fats,oils,nes	34.96	0.97	S3-64	paper,paperboard,etc.	2,150.15	0.88

Source: Calculations based on UN-Comtrade data.

We need to explore this sector further to see how the Philippines has been involved with the world/regionwide production network. Table 3 shows where and how much trade is occurring for SITC 77 products in the world in terms of exports (rows) and imports (columns). The Philippines' trade with China, Japan, Korea, Singapore and the U.S. is substantial. We can see, however, differences between Philippines' trade with the U.S. and other countries. While trade with the U.S. is such that exports far exceed imports, Philippine trade with other countries is more or less balanced. This suggests the possibility of intra-industry trade among East Asian countries and the area as a production block as a whole.

Table 3. Export matrix for SITC 77, 2006

	Australia	China	Hong Kong	Japan	Korea	Malaysia	Philippines	Singapore	Viet Nam	Thailand	USA
World	1,250	101,722	71,385	87,408	48,546	34,300	21,227	82,071	1,463	16,845	106,756
Australia	0	925	337	333	234	131	53	408	25	150	844
China	58	0	45,986	18,265	12,314	3,284	2,866	11,877	52	1,403	8,117
Hong Kong	48	26,846	0	10,672	6,771	4,661	2,697	12,083	64	1,761	4,407
Japan	16	9,593	2,817	0	4,262	2,243	2,676	5,542	910	3,369	4,820
Korea	34	5,559	2,190	7,714	0	714	589	4,695	31	545	6,407
Malaysia	20	2,156	989	3,584	1,336	0	1,536	14,251	13	960	6,647
Philippines	5	1,358	623	2,866	1,614	638	0	1,320	16	628	4,695
Singapore	73	4,577	1,880	4,905	4,164	7,384	2,153	0	30	1,222	5,137
Viet Nam	6	286	81	620	112	64	28	335	0	224	57
Thailand	16	839	734	4,025	551	1,301	192	3,150	38	0	1,750
USA	145	15,151	5,214	10,631	4,660	5,770	1,821	8,711	87	1,874	0

Source: Calculations based on UN-Comtrade data.

In fact, we further calculate the intra-industry trade of the Philippines in depth and find out that using aggregate data, IIT is 0.98 which is very high. The index becomes smaller when we break down to a more detailed classification (Table 4). With the 5-digit level calculation, the IIT becomes 0.2. The IIT seemingly is substantial but not so much at the detailed level. Within SITC 77, therefore, vertical, rather than horizontal, division of labor should be prevailing in the East Asian region.

Table 4. IIT for SITC77

IIT FOR 77	
2 digit	0.98
3 digit	0.92
4 digit	0.33
5 digit	0.20

Source: Calculations based on UN-Comtrade data.

Table 5. High and low IIT sectors, 2006

High IIT					
SITC		IIT	Exports (th. \$)	Imports (th. \$)	Price (M/X)
S3-77255	Other switches for a voltage not exceeding 1,000 V	0.99	23,419	23,944	0.67
S3-77883	Parts of the equipment of heading 778.82	0.94	976	862	6.17
S3-77835	Parts of the equipment of heading 778.34	0.87	1,256	959	0.04
S3-77833	Parts of the equipment of heading 778.31	0.86	1,823	1,389	0.47
S3-77821	Filament lamps	0.82	20,213	13,988	0.40
S3-77243	Other automatic circuit-breakers	0.81	1,205	1,782	0.26
S3-77868	Variable or adjustable (pre-set) capacitors	0.79	761	1,163	0.32
S3-77315	Other electric conductors, for a voltage exceeding 80 V	0.79	31,288	20,354	0.13
S3-77812	Electric accumulators (storage batteries)	0.76	37,801	61,608	0.62
S3-77862	Tantalum fixed capacitors	0.75	7,753	4,671	1.26
S3-77631	Diodes, other than photosensitive or light-emitting diodes	0.74	78,188	133,850	1.97
S3-77125	Other inductors	0.73	84,674	49,073	0.18
S3-77235	Other variable resistors	0.61	7,239	16,541	0.41

Low IIT					
SITC		IIT	Exports (th. \$)	Imports (th. \$)	Price (M/X)
S3-77649	Other electronic integrated circuits and microassemblies	0.01	3,529,849	9,049	1.09
S3-77884	Electric sound or visual signalling apparatus	0.01	1,289,963	4,992	0.02
S3-77632	Transistors (excluding photosensitive transistors)	0.01	1,347,202	6,137	0.72
S3-77633	Transistors (excluding photosensitive transistors)	0.04	5,093,461	101,998	0.24
S3-77645	Hybrid integrated circuits	0.14	93,765	6,912	2.41
S3-77639	Other semiconductor devices	0.15	1,350,066	111,522	0.88
S3-77121	Static converters (e.g., rectifiers)	0.22	472,139	57,557	1.03
S3-77312	Co-axial cable and other co-axial conductors	0.22	83,996	10,476	0.66
S3-77313	Ignition wiring sets and other wiring sets	0.24	788,343	107,183	1.66
S3-77123	Ballasts for discharge lamps or tubes	0.30	17,638	3,069	0.10
S3-77831	Electrical ignition or starting equipment	0.34	37,353	7,756	0.09
S3-77251	Fuses for a voltage not exceeding 1,000 V	0.40	35,070	8,655	0.25
S3-77885	Parts of the equipment of heading 778.84	0.49	6,512	2,086	0.31

Source: Calculations based on UN-Comtrade data.

Table 5 reports high and low IIT, analyzed at the 5-digit level. One can see that many parts are horizontally traded from the high IIT table. The largest value recorded is 77125. One interesting observation is its price, with the import price at about 20% of the export price. This suggests that the Philippines imports materials relatively inexpensively and exports the same by adding substantial value added. However, the next largest item shows just the opposite, with the import price is about twice as large as the export price. Thus, it seems that there is no single trend

that prevails for all goods. For the low IIT table, it is clear that most of the items are very much one-sided and more or less exclusively exports.

Another observation is that all of these items are intermediate products. Some are both exported and imported, or high IIT items, and others are exclusively exported (imported). No single trend is found here. Thus, this country is currently (as of 2006) engaging a very complicated network of trade.

4. International Comparison of RCA: Is Philippine RCA Similar to Those of Other East Asian Countries?

The next question addresses the role that the Philippines plays in the international production network. Is the country complementary to other countries or competing with them? In order to see this, we calculate RCAs for the East Asian countries and other trading partners first. Then, we analyze similarities by calculating correlation coefficients. If we find similarity or a high correlation coefficient close to 1, this indicates that the countries involved are competing with each other. On the other hand, if the countries are complementary, we should find a high negative correlation coefficient close to -1.

Table 6 shows the results of this exercise. For overall trade, 66 categories for 10 countries are analyzed, while for SITC 7, 10 categories are analyzed. For overall trade, the Philippines' comparative advantage is similar to Malaysia, Thailand, Indonesia and China (but not too much so), while Japan and the U.S. shows complementary RCA patterns to the Philippines.

For manufacturing (SITC 6 to 8), the Philippines RCA pattern becomes more similar to Singapore, Malaysia and Thailand, and less so to China and Indonesia. The U.S. and Japan show strong complementary patterns. This characteristic is intensified for the case of SITC 7.⁵

⁵We need to do the same type of exercises to explore similarities for the RCA patterns of 3- to 5-digit levels.

Table 6. RCA correlation analysis

a. All Industries

	CHN	INDO	JPN	KOR	MAL	PHL	SIN	THA	USA	VIET
China	1.00	-0.19	-0.25	0.00	-0.19	0.14	-0.30	-0.06	-0.56	0.20
Indonesia	-0.19	1.00	-0.29	-0.29	0.58	0.14	-0.16	0.03	-0.30	0.26
Japan	-0.25	-0.29	1.00	0.43	-0.26	-0.20	0.19	-0.16	-0.12	-0.31
Korea	0.00	-0.29	0.43	1.00	-0.20	-0.08	0.27	0.01	-0.28	-0.20
Malaysia	-0.19	0.58	-0.26	-0.20	1.00	0.26	-0.01	-0.02	-0.33	-0.02
Philippines	0.14	0.14	-0.20	-0.08	0.26	1.00	0.06	0.16	-0.28	-0.04
Singapore	-0.30	-0.16	0.19	0.27	-0.01	0.06	1.00	-0.09	-0.02	-0.02
Thailand	-0.06	0.03	-0.16	0.01	-0.02	0.16	-0.09	1.00	-0.13	0.28
USA	-0.56	-0.30	-0.12	-0.28	-0.33	-0.28	-0.02	-0.13	1.00	-0.28
Vietnam	0.20	0.26	-0.31	-0.20	-0.02	-0.04	-0.02	0.28	-0.28	1.00

b. SITC 6 to 8

	CHN	INDO	JPN	KOR	MAL	PHL	SIN	THA	USA	VIET
China	1.00	0.64	-0.83	-0.67	0.06	0.18	-0.36	0.29	-0.80	0.65
Indonesia	0.64	1.00	-0.57	-0.51	0.11	0.01	-0.41	0.33	-0.57	0.87
Japan	-0.83	-0.57	1.00	0.40	-0.26	-0.19	0.18	-0.21	0.46	-0.52
Korea	-0.67	-0.51	0.40	1.00	0.05	-0.19	0.23	-0.48	0.55	-0.50
Malaysia	0.06	0.11	-0.26	0.05	1.00	0.57	0.64	0.47	-0.24	-0.13
Philippines	0.18	0.01	-0.19	-0.19	0.57	1.00	0.64	0.52	-0.39	-0.11
Singapore	-0.36	-0.41	0.18	0.23	0.64	0.64	1.00	0.20	0.07	-0.42
Thailand	0.29	0.33	-0.21	-0.48	0.47	0.52	0.20	1.00	-0.44	0.20
USA	-0.80	-0.57	0.46	0.55	-0.24	-0.39	0.07	-0.44	1.00	-0.59
Vietnam	0.65	0.87	-0.52	-0.50	-0.13	-0.11	-0.42	0.20	-0.59	1.00

c. SITC 7

	CHN	INDO	JPN	KOR	MAL	PHL	SIN	THA	USA	VIET
China	1.00	0.66	-0.68	-0.11	0.81	0.34	0.44	0.56	-0.75	0.32
Indonesia	0.66	1.00	-0.73	0.01	0.54	0.33	0.38	0.49	-0.32	0.52
Japan	-0.68	-0.73	1.00	-0.11	-0.71	-0.44	-0.48	-0.40	0.17	-0.34
Korea	-0.11	0.01	-0.11	1.00	-0.16	-0.13	-0.27	-0.39	0.08	-0.69
Malaysia	0.81	0.54	-0.71	-0.16	1.00	0.79	0.82	0.60	-0.72	0.52
Philippines	0.34	0.33	-0.44	-0.13	0.79	1.00	0.90	0.55	-0.50	0.54
Singapore	0.44	0.38	-0.48	-0.27	0.82	0.90	1.00	0.38	-0.53	0.53
Thailand	0.56	0.49	-0.40	-0.39	0.60	0.55	0.38	1.00	-0.48	0.69
USA	-0.75	-0.32	0.17	0.08	-0.72	-0.50	-0.53	-0.48	1.00	-0.20
Vietnam	0.32	0.52	-0.34	-0.69	0.52	0.54	0.53	0.69	-0.20	1.00

Source: Calculations based on UN-Comtrade data.

5. FDI Export Linkage: Partial Evidence

The Philippines' export structure has been changing rapidly and is now quite similar to other East Asian countries. However, this change has not been brought about by domestic factors alone; rather, similar to other East Asian countries, the role of FDI is very important. Table 6 shows how Japanese FDI has been in operation in the Philippines.

Table 7. Japanese FDI to Philippines

	1989-1997		1998-2002		2003-04		1989-2004	
	Cases	Value	Cases	Value	Cases	Value	Cases	Value
Food	17	24	1	723	0	0	18	747
Textile	56	41	0	0	0	0	56	41
Lumber & Pulp	10	28	1	6	0	0	11	34
Chemical	70	172	6	151	2	36	78	359
Metal	81	349	11	110	2	19	94	477
Machinery	31	217	12	129	3	16	46	361
Electrical	238	1,144	56	680	13	243	307	2,067
Transport	110	503	15	265	1	5	126	774
Others	85	315	6	63	8	135	99	514
Manufacturing Total	699	2,793	108	2,126	29	454	836	5,373
Non-Manufacturing Total	575	1,285	40	541	12	268	627	2,094
Total	1,285	4,122	149	2,702	53	1,063	1,487	7,887

Source: Calculation based on the Ministry of Finance, Japan, Data, www.mof.go.jp.

The main source of FDI in the Philippines has been the U.S., the European Union and Japan. The U.S. remains the most important source of FDI to the Philippines, but Japanese FDI to the Philippines has picked up and accelerated since 1990. Japanese FDI has been concentrated in manufacturing, and in particular, the electrical sector, both in terms of cases and value.

Table 8. Objectives of Japanese FDI

	machine		electric/electronics devices		automobiles and parts		precision tools	
A: securing resources	0	0.0%	0	0.0%	0	0.0%	0	0.0%
B: labor	25	62.5%	44	57.1%	36	44.4%	16	72.7%
C: host government policy	11	27.5%	6	7.8%	1	1.2%	12	54.5%
D: production network	15	37.5%	60	77.9%	59	72.8%	20	90.9%
E: distribution network	7	17.5%	0	0.0%	2	2.5%	0	0.0%
F: local market	11	27.5%	16	20.8%	54	66.7%	0	0.0%
G: export to 3rd countries	0	0.0%	10	13.0%	3	3.7%	1	4.5%
H: export back to Japan	9	22.5%	24	31.2%	19	23.5%	6	27.3%
I: following partners	1	2.5%	1	1.3%	4	4.9%	0	0.0%
J: fund raising, management, exchange risk hedge	0	0.0%	0	0.0%	0	0.0%	0	0.0%
K: royalty and information	2	5.0%	7	9.1%	1	1.2%	0	0.0%
L: product development and planning	0	0.0%	0	0.0%	0	0.0%	2	9.1%
M: new business	7	17.5%	0	0.0%	0	0.0%	0	0.0%
N: strengthening regional headquarter function	0	0.0%	0	0.0%	0	0.0%	0	0.0%
O: trade friction	0	0.0%	0	0.0%	0	0.0%	0	0.0%
P: others	0	0.0%	0	0.0%	0	0.0%	0	0.0%
responses/total number of FDI firms	100		257		198		57	

Source: Based on the database of Research Institute for Economics and Business Administration, Kobe University.

Table 8 shows the objectives of Japanese FDI companies by sector. For the electric and electronic device sector, 78% of the firms cited production network as the most important factor. Cheap labor is also considered to be very important (57%). The local market is important for the automobile and parts sector, while production network shares more than 90% for precision tools. For the machine sector, cheap labor is most important.

The FDI development as noted above has contributed to make East Asia one production block. Trade of intermediate goods within the region has increased, while final products are sold mainly to the U.S.

Thus, this process of industrialization naturally makes East Asia very vulnerable to a worldwide recession. Once the consumption boom of the U.S. was over and recession began, operation in this regionwide production network was forced to shrink. The U.S.-oriented financial meltdown brought real sector damage; first by the fall in final products, followed by the fall in intermediate products. Creating similar structures and complementary structures in the region cannot serve as insurance against such events. Each country in the region needs to upgrade their production capacity and search for more concrete strength. Does the Philippines

have this kind of strength? This is the question to be addressed in the next section.

6. New Dimension of International Aspects and the Strength of the Philippines

Because of this deepening of interdependence, greater efforts have been made to enhance trade and investment liberalization, and, to some extent, this has been brought about by the recent proliferation of FTA/EPAs. For the electric and electronic sector, however, tariffs have been lowered to such an extent that the cost of rule of origin procedure is almost equivalent and multinationals in this sector have opted to not use the benefits of FTA/EPAs. However, the FTA/EPAs are designed not only for tariff reductions and investment promotion, but are also designed to enhance labor mobility, facilitation of investment, common rules, intellectual property and so on.

The Japan-Philippine EPA (Agreement between Japan and the Republic of the Philippines for an Economic Partnership) has a special chapter on movement of natural persons.⁶ Over two years, 1,000 nurses and caretakers are to be invited to Japan from the Philippines (this is the same condition as in the Japan-Indonesia EPA). In order for Filipino nurses and caretakers to stay and work longer in Japan, they are required to pass a qualification exam in Japanese.

This new international dimension opens up opportunities for the Philippines. As is well known, this country excels in internationally mobile citizens. Remittances from overseas Filipino workers (OFWs) have been a very important source of foreign exchange inflows,⁷ comprising about 20% and 70% of the country's export earnings and services income. OFWs were attracted to the Middle East during the oil and subsequent construction boom of the 1970s. Since the early 1990s, however, they began to shift to booming Asian economies like Singapore, Malaysia, Thailand and Indonesia. About 80% of these workers are in service and production-related fields; professional and technical workers share another 12%.⁸ The Philippines has a competitive edge here.

⁶<http://www.mofa.go.jp/policy/economy/fta/philippines.html>

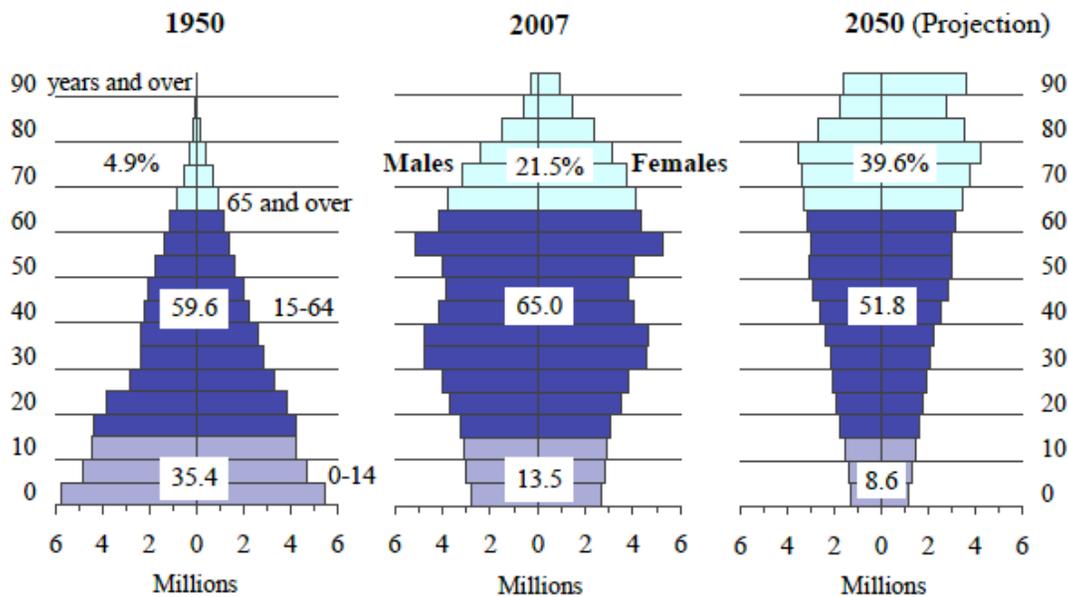
⁷Alejandro N. Herrin and Ernesto M. Pernia, Chapter 9: Population, Human Resources, and Employment, Balisacan and Hill (ed.), *The Philippine Economy: Development, Policies, and Challenges*, Ateneo De Manila University Press, Manila, 2003.

⁸Table 5.7 of Bautista and Tecson, *op.cit.*

7. Japan's Aging Population and Demand for Caretakers

The speed of aging of Japan's population is very fast. The population pyramid of 1950 shows that Japan had a standard-shaped pyramid (Figure 1). As both the birth rate and death rate have declined during the course of Japanese economic development, in 2007, the population of elderly citizens (65 years and over) was 27.46 million (21.5% of the total population). In 2050, the share of the aged is projected to be as high as 39.6%. Obviously, the rapid progress of demographic aging in Japan requires that concrete policies be taken in the years to come. In recent conclusions of the EPAs with Indonesia and the Philippines, care workers from these countries are invited to work in Japan. The problem is that the number is too small and too many restrictions and requirements are levied on care workers.⁹

Figure 1. Population pyramid of Japan, 1950, 2007 and 2050



Source: Ministry of Labor, Japan, <http://www.stat.go.jp/english/data/handbook/c02cont.htm>

According to the Ministry of Health, care worker demand will be tantamount to 1.4-1.6

⁹<http://www.stat.go.jp/english/data/handbook/c02cont.htm>

million in 2014.¹⁰ This implies that for the next 10 years, 400,000 to 600,000 care workers are additionally demanded. At the moment, because of hard work and low wages, care workers are least supplied. This is evidenced by the job vacancy rate which was 1.87, while the average overall is 1.0. Moreover, the average wage of 30-34 year old men is 3.36 million yen for care workers, while it is 4.68 million yen for the service sector as a whole.¹¹ Thus, there is little hope for domestic caretakers to fill the gap in the future. The problem is that there is a serious demand and supply gap that Japan will face in the near future, and the current EPAs between Japan and the Philippines and Indonesia with only 1,000 caretakers being allowed into Japan is not sufficient. Even with this small number promised, Japan is facing difficulty in finding care houses to receive all of them due to the economic downturn. In light of this impending situation, Japan should further open its domestic market and the Philippines should use this opportunity to send more professional people to the region.

8. Conclusion

The global financial crisis has hit the real side of the economy throughout Asia, and the Philippines is no exception. Through the interconnectedness of financial institutions and markets, what started as a credit quality problem has spread throughout the world. The rapid expansion of intraregional trade over the last decades seemingly suggests that Asia's reliance on external trading partners has shrunk. In reality, however, global demand still represents a major factor behind Asia's export growth. Indeed, the relationship between U.S. import growth and Asian intraregional export growth has actually become stronger over time.

Japan shifted her stance from exporting industrial products to the U.S. and Europe to constructing manufacturing bases in Asia after the 1985 Plaza Accord, when the yen exchange rate doubled in value within a year. This started to create greater interdependence in Asia, with the development of the region as a singlewide factory and this factory began to depend on the U.S. and Europe final demand. As a result, the economic downturn of the U.S. and Europe has had a significant impact on Asia.

We explored the changing international trade structure of the Philippines and how the economy became so interdependent. In addition, how Japan has engaged in this development

¹⁰www.mhlw.go.jp/shingi/2008/04/dl/s0418-3h.pdf

¹¹Basic Survey of Wage Structure 2007, Ministry of Labor, Japan.

was addressed. The Philippine now serves as one of many in East Asia to produce products to sell to the U.S., EU and Japan. Intermediate products are traded within East Asian countries, which brought interdependence and vulnerability against the current world business downturn. In order to cope with this, the Philippines needs to upgrade its industrial structure to become more independent and also find its unique strength. One such area is to further enhance its mobility of natural persons as remittances have grown to 30% level of exports.

Japan needs to be prepared not only to absorb productions in this area, but it must also open and enlarge markets for such mobile natural persons. The Japanese aging problem is serious and will demand increasing international cooperation in the near future.



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