

Philippines' competitiveness and global financial meltdown: a question of Japan's role*

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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.

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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

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for the Philippines). What started out as a credit-quality problem is related to the subprime housing loan problem in the United States (US), which spread throughout the world through the interconnectedness of financial institutions and markets. For a while, 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, the Philippines included, had been enjoying double-digit gross domestic product (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 US import growth and Asian intraregional export growth has actually become stronger over time.

Japan shifted its stance from exporting industrial products to the United States 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 single factory region. Because this factory depended on US and Europe final demand, the economic downturn of the United States and Europe has had a substantial effect on Asia. According to the Asian Development Bank, Philippine merchandise exports contracted by 2.6 percent in nominal US dollars in 2008 [ADB 2009]. In particular, in December 2008 exports plunged by 40.3 percent (based on year-on-year changes). Merchandise imports, on the other hand, increased by 5.0 percent due to high world commodity prices during the year. Imports of capital goods, however, declined by 4.2 percent. This resulted in an increase in the Philippine trade deficit to US\$ 12.6 billion, from US\$ 8.4 billion a year earlier. Inflows of remittances helped keep the current account in surplus, although that surplus also fell to US\$ 4.2 billion (2.5 percent of GDP). The overall balance-of-payments surplus was US\$ 89 million, down from a record US\$ 8.6 billion in 2007. The consequence of this was a lower peso value, which in fact was down 13.0 percent against the US dollar in 2008.

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

In the next section, we explore the changing structure of the Philippines' international trade and how the economy became so interdependent. In discussing these issues, we follow a traditional approach, using the concepts of

revealed comparative advantage, intra-industry trade (IIT), 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 3, while section 4 discusses the link between foreign direct investments (FDIs) and exports. Whether the recent proliferation of regional agreements propels interdependence or, because of strengthening interdependence, has brought proliferation of free trade agreements (FTAs) and economic partnership agreements (EPAs), is discussed in section 5. The last section concludes the paper.

2. Structure of international trade of the Philippine economy

Philippine exports, like those of other Asian growth pole countries, have been growing since the 1970s at double-digit rates. The Philippines has shifted its competitiveness structure as shown in Table 1. A clear shift is observable in the list of top-ten SITC two-digit sectors, from primary sector exports to exports of manufactured goods. In 1985, electronics (SITC 77) made up only a 5.8 percent share, but by 2006 it had become the largest export sector, comprising 44.8 percent 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 total share is 64.0 percent. These products are intended for the markets of the United States, the European Union, and Japan [Hill 2003]. Surely, the Philippines is no longer a country of bananas and light manufactured exports.

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 also intensive in the utilization of semiskilled and technical labor. The growth of these exports is, however, not entirely due to domestic forces. As is the case for other East Asian countries, foreign direct investment by multinational enterprises has contributed substantially to the change in export structure. This aspect is analysed separately in another section.

The Philippines' 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 [Balassa 1965]. By calculating these indexes for time-series

data, one can assess how RCA shifts over time. In fact, Bautista and Tecson [2003] analysed 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.

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. In the electronics sector, which is the major export sector, the structure of RCA turns out to be quite compatible with that of 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 the 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.

We need to explore this sector further to see how the Philippines has been involved in 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 United States is substantial. We can see, however, differences between Philippines' trade with the United States and that with other countries. While trade with the United States 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.

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 five-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, a vertical, rather than horizontal, division of labor should be prevailing in the East Asian region.

Table 1. Structural change in exports between 1985 and 2006

<i>SITC code</i>	<i>Content</i>	<i>Export value (million \$)</i>	<i>Share</i>	<i>Cumulative share</i>
1985				
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%

Table 1. Structural change in exports between 1985 and 2006 (continued)

<i>SITC code</i>	<i>Content</i>	<i>Export value (million \$)</i>	<i>Share</i>	<i>Cumulative share</i>
2006				
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, petroleum products	104.80	2.21%	75.99%
S3-05	Vegetables and fruit	96.28	2.03%	78.02%
S3-76	Telecommunication 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.

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

Philippines	Exports(mil.\$)	RCA	Korea	Exports(millions\$)	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 other transport equipment	22,290.70	1.99
S3-42 fixed vegetable 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, sug. preparations, honey	135.89	2.98	S3-33 petroleum, petroleum products	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 telecom. sound equip etc.	37,300.38	1.57
S3-12 tobacco, tobacco manufactures	138.49	2.19	S3-78 road vehicles	42,418.41	1.53
S3-75 office machines, adp machine	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. apparatus nes; clocks	798.78	1.53	S3-62 rubber manufactures, nes	2,971.25	1.13
S3-97 gold, nonmonetary excl ores	300.38	1.45	S3-26 textile fibers	1,044.05	1.11
S3-81 prefab buildings, fittings etc.	194.36	1.40	S3-58 plastic, non-primary form	2,375.08	1.11
S3-29 crude animal, veg. material	80.56	1.21	S3-77 elec mch appar, parts, nes	48,545.90	1.10
S3-03 fish, crustaceans, molluscs	387.40	1.11	S3-72 special industrial 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.

Table 3. Export matrix for SITC 77, 2006

	Australia	China	Hong Kong	Japan	Korea	Malaysia	Philippines	Singapore	Vietnam	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.

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 reports high and low IIT, analysed at the five-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 percent 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—the import price is about twice as large as the export price. Thus, it seems that no single trend 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 in a very complicated network of trade.

3. International comparison of RCA: Is the Philippine RCA similar to that 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? To see this, we calculate RCAs for the East Asian countries and other trading partners first. Then, we analyse 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 5. High and low IIT sectors, 2006

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

Table 5. High and low IIT sectors, 2006 (continued)

<i>SITC</i>		<i>IIT</i>	<i>Exports (th. \$)</i>	<i>Imports (th. \$)</i>	<i>Price (M/X)</i>
Low IIT					
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 6 shows the results of this exercise. For overall trade, 66 categories for ten countries are analysed, while for SITC 7, ten categories are analysed. For overall trade, the Philippines' comparative advantage is similar to that of Malaysia, Thailand, Indonesia, and China (but not too much), while Japan and the United States show complementary RCA patterns to the Philippines.

For manufacturing (SITC 6 to 8), the Philippine RCA pattern becomes more similar to that of Singapore, Malaysia, and Thailand, and less so to that of China and Indonesia. The United States and Japan show strong complementary patterns. This characteristic is intensified for the case of SITC 7.¹

4. FDI export linkage: partial evidence

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

The main source of FDI in the Philippines has been the United States, the European Union, and Japan. The United States 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, the electrical sector, in particular, both in terms of cases and value.

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

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

Thus, this process of industrialization naturally makes East Asia very vulnerable to a worldwide recession. Once the consumption boom of the United States was over and recession began, operation in this regionwide production network was forced to shrink. The US-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

¹We need to do the same type of exercises to explore similarities for the RCA patterns of three- to five-digit levels.

country in the region needs to upgrade its 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.

Table 6. RCA correlation analysis

	CHN	INDO	JPN	KOR	MAL	PHL	SIN	THA	USA	VIET
a. All Industries										
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

Table 6. RCA correlation analysis (continued)

	CHN	INDO	JPN	KOR	MAL	PHL	SIN	THA	USA	VIET
b. SITC 6 to 8										
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

Table 6. RCA correlation analysis (continued)

	CHN	INDO	JPN	KOR	MAL	PHL	SIN	THA	USA	VIET
c. SITC 7										
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.

Table 7. Japanese FDI to Philippines

	1989-1997		1998-2002		2003-2004		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.gov.jp.

Table 8. Objectives of Japanese FDI

	Machine	Electric/ electronics devices	Automobiles and parts	Precision tools
A: securing resources	0	0	0	0
B: labor	25	44	36	16
C: host government policy	11	6	1	12
D: production network	15	60	59	20
E: distribution network	7	0	2	0
F: local market	11	16	54	0
G: export to 3rd countries	0	10	3	1
H: export back to Japan	9	24	19	6
I: following partners	1	1	4	0
J: fund raising, management, exchange risk hedge	0	0	0	0
K: royalty and information	2	7	1	0
L: product development and planning	0	0	0	2
M: new business	7	0	0	0
N: strengthening regional headquarter function	0	0	0	0
O: trade friction	0	0	0	0
P: others	0	0	0	0
Responses/total number of FDI firms	100	257	198	57

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

5. 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 not to use the benefits of FTA/EPAs. However, the FTA/EPAs are designed not only for tariff reductions and investment promotion but also for labor mobility enhancement and facilitation of investment, common rules, intellectual property, and so on.

The Japan-Philippines Economic Partnership Agreement has a special chapter on movement of persons [MOFA 2009]. Over two years, 1,000 Filipino nurses and caretakers will be invited to Japan (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.

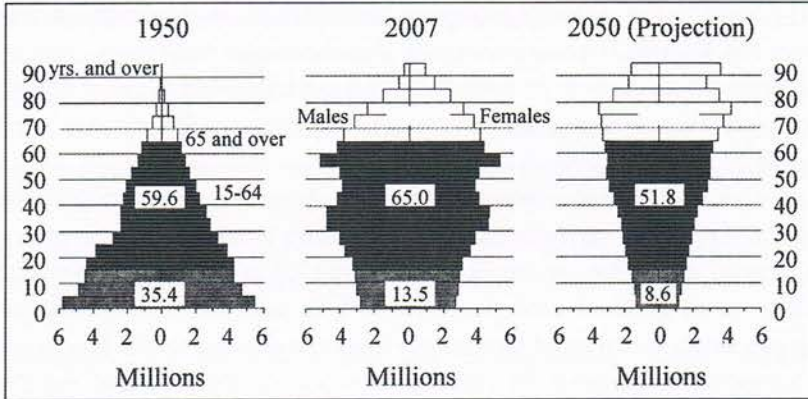
This new international dimension opens up opportunities for the Philippines. As is well known, this country excels in internationally mobile citizens. Remittances from overseas Filipino workers (OFWs) have been a very important source of foreign exchange inflows [Herrin and Pernia 2003], comprising about 20 percent and 70 percent 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 have begun to shift to booming Asian economies like Singapore, Malaysia, Thailand, and Indonesia. About 80 percent of these workers are in service and production-related fields; professional and technical workers share another 12 percent [Bautista and Tecson 2003: Table 5.7]. The Philippines has a competitive edge here.

Japan's aging population and the demand for caretakers

The speed of aging of Japan's population is very fast. The population pyramid of 1950 shows Japan to have 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 percent of the total population). In 2050, the share of the aged is projected to be as high as 39.6 percent. 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.

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>.

The Japanese Ministry of Health says that care-worker demand would amount to 1.4-1.6 million in 2014 [www.mhlw.go.jp/shingi/2008/04/dl/s0418-3h.pdf]. This implies that for the next ten years, 400,000 to 600,000 care workers are needed. At the moment, because of hard work and low wages, care workers are least supplied. This is evidenced by the job vacancy rate of 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 [Japan Ministry of Labor 2007]. Thus, there is little hope for domestic caretakers to fill the gap in the future. The problem is that Japan will face a serious demand-and-supply gap in the near future, and the 1,000 caretakers being allowed into Japan according to the current EPAs between Japan and the Philippines and Indonesia are insufficient. 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 country.

6. Conclusion

The global financial crisis has hit the real side of the economy throughout Asia, and the Philippines has not been spared. 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 US import growth and Asian intraregional export growth has actually become stronger over time.

Japan shifted its stance from exporting industrial products to the United States 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 single factory and this factory began to depend on the United States and Europe's final demand. As a result, the economic downturn of the United States 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. Japan's engagement in this development was also addressed. The Philippines is now among many in East Asia that produces to sell to the United States, the European Union, and Japan. Intermediate products are traded within East Asian countries, which has brought interdependence and vulnerability against the current world business downturn. To cope with this, the Philippines needs to upgrade its industrial structure both to become more independent and find its unique strength. One such area is to further enhance the mobility of its working population, as remittances have grown to 30 percent level of exports.

Japan must be prepared not only to absorb productions in this area, but also to open and expand markets for such a mobile workforce. The aging problem in Japan is serious and will demand increased international cooperation in the near future.

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